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ABSTRACT

This report on an international symposium on the strengthening of the development and improvement of vocational education begins with a description of UNEVOC, the International Project on Technical and Vocational Education. Section 2 presents discussions of the following topics: adult and continuing technical and vocational education and its relationship with the world of work; contribution of technical and vocational education to careers for women; transformation of work; changing orientation and policy environment; changing provision and participation patterns; technical teacher; and changing in content and educational approaches. Section 3 highlights essential components for future developments: language, general principles, world of work, culture, women, migrants, equal status, funding, responsibility, teachers, learning, lifelong learning, curriculum, guidance and counseling, communication, and implementation strategies. Section 4 contains 10 presentations: "Adult and Continuing Technical and Vocational Education in India" (Arun K. Mishra, Ajit Kumar); "The Contributions of Technical and Vocational Education to the Opening Up of Careers for Women" (Helga Foster); "The Change and Impact of Culture on the Worker and on Work" (Henning Salling Olesen); "The Changing Provision and Participation Patterns in Adult and Continuing Technical and Vocational Education" (Ndeh Ntomambang Ningo); "Adult Learning and the Transformation of Work" (Paul Belanger); "The Changes in the Content and Educational Approaches" (Aber Aragon Castro); "The Changing Orientation and Policy Environment of Adult and Continuing Technical and Vocational Education" (Suresh Munbodh); "The Transformation of Work in the Different Regional Contexts" (Fernando Bogantes); "The 'Tossed Salad' Approach to Cultural Identity in the Contemporary Workplace" (John C. Hinchcliff); and "ICES [International Centre of Educational Systems] Activity in Consolidation of International, Governmental, and Non-Governmental Actors for Adult and Continuing Education" (S. I. Peshkov). Appendixes include daily schedule; working document; list of main participants; and Convention on Technical and

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Projet international pour l'enseignement technique et professionnel

The Challenge of the Future

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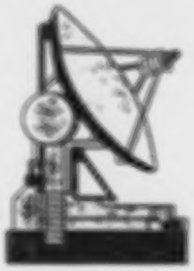

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An International Symposium

in co-operation with the
UNESCO Institute for Education

Berlin, Germany, 16-20 October 1995

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Projet international pour l'enseignement technique et professionnel

The Challenge of the Future

Future Trends in
Adult and Continuing Technical and Vocational Education

An International Symposium

in co-operation with the
UNESCO Institute for Education

Berlin, Germany, 16-20 October 1995

The Organisers

The Symposium was presented by UNESCO's UNEVOC Implementation Unit, Berlin (UNEVOC Berlin) in co-operation with the UNESCO Institute for Education (UIE), Hamburg.

◆

UNEVOC Berlin

The International Project on Technical and Vocational Education (UNEVOC) is a project of the United Nations Educational, Scientific and Cultural Organisation (UNESCO). Its purpose is to contribute to the development and improvement of technical and vocational education in Member States.

Based on an agreement between UNESCO and the Government of the Federal Republic of Germany on UNEVOC, a project implementation unit has been established in Berlin. UNEVOC Berlin was officially opened on the occasion of the first session of the UNEVOC International Advisory Committee in September 1993.

UNEVOC Berlin assists the overall planning of UNEVOC and is responsible for the implementation of certain activities specified in the UNEVOC programme.

◆

The UNESCO Institute for Education

The UNESCO Institute for Education (UIE) was founded in 1951. It is one of three educational institutes of UNESCO. It specialises in the education of adults and continuing education, literacy and non-formal basic education. Thus, the objective that has been assigned to it by UNESCO is the development of adult learning in the perspective of Lifelong Education. One of its major features is that it combines three sectors of education that are often separated. These are research, policies and practices.

◆

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Foreword

This is a comprehensive report on an International Symposium that was organised and conducted by the UNEVOC Implementation Unit in Berlin of the UNESCO International Project on Technical and Vocational Education. The UNESCO Institute for Education (UIE) in Hamburg, Germany, co-operated in this Symposium. The UNEVOC Project has as its primary goal the task of strengthening the development and improvement of technical and vocational education in UNESCO Member States around the world. This Symposium was designed to make a significant contribution to the attaining of that goal.

With the phenomenon of change being so pressing on most areas of human endeavour, it is imperative that we anticipate the developments, both positive and negative, that will most certainly impact upon adult and continuing technical and vocational education. Thus, that area of education is presented with the challenge to define, as far as possible, the changes that will impact upon it, and the responses that it must make to ensure that its contribution to human development is relevant, positive and valuable. The Symposium was designed to assist the world of adult and continuing technical and vocational education to define these changes and suggest positive ways of responding to them.

The preparation of the Fifth International Conference on Adult Education by UNESCO, to be held in Hamburg in 1997, is one of the principal responsibilities of the UNESCO Institute for Education at the moment. This Conference will focus on the relationship between adult education and work. Thus it was that both UNEVOC Berlin and the UIE co-operated in presenting this International Symposium.

The Symposium brought together a small group of people whose perspectives of possible future changes, and the varying contexts in which those changes would occur, were very different. That difference was sought in order to ensure that the heterogeneity of change would be reflected in the judgements and recommendations made by the Symposium. The Report will be disseminated as widely as possible in order that the broad spectrum of technical and vocational education around the world will benefit from it.

Those responsible for the development of adult and continuing technical and vocational education in Member States are invited to study carefully the recommendations of this report set out in Section II. Significantly, these recommendations are consistent with the major conclusions of the UNESCO International Commission on Education for the 21st Century chaired by Jacques Delors (see "***Learning: the Treasure Within***", UNESCO, 1996). Both reports see the need for learning throughout life as the key to the 21st century and the need for a much closer integration between education and training for the world of work. In short, "learning throughout life must take advantage of all the opportunities provided by society".

The potential of the UNEVOC project to facilitate the development of adult, technical and vocational education will be realised only through the co-operative endeavours of those working in this field, and in particular, the institutions from all parts of the world that are part of the UNEVOC Network.

I would invite readers interested in exploring further the practical implications of the recommendations of this Report to contact their nearest UNEVOC Centre (see the UNEVOC Directory available from UNEVOC Berlin), UNESCO Office or National Commission.

I commend the Report to you. It has considerable potential as a resource to guide the activities of those whose responsibility it is to respond constructively to **Future Trends in Adult and Continuing Technical and Vocational Education**.

Colin N. Power
Assistant Director-General for Education
UNESCO

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1 Introduction

1.1 About UNEVOC

What is UNEVOC?

The International Project on Technical and Vocational Education (UNEVOC) is a project of the United Nations Educational, Scientific and Cultural Organisation (UNESCO). Its purpose is to contribute to the development and improvement of technical and vocational education in Member States. Based on a decision taken at the twenty-sixth session of the General Conference of UNESCO in 1991, UNEVOC was launched in 1992.

Background

The idea of launching a comprehensive project in technical and vocational education within UNESCO dates back to 1987. That year, UNESCO held its first International Congress for the Development and Improvement of Technical and Vocational Education in Berlin, Germany. Strong support was shown for the suggestion that mechanisms be established for the international exchange of information on technical and vocational education. It was proposed that UNESCO support the establishment of an international centre for research and development in technical and vocational education.

The General Conference of UNESCO, at its twenty-fifth session in 1989, took two important decisions related to technical and vocational education:

- The General Conference adopted the Convention on Technical and Vocational Education (see Appendix F). This standard-setting instrument provides a coherent set of concepts and guidelines for the development of technical and vocational education in Member States, with particular regard to assuming public responsibility for framing policies and defining strategies of technical and vocational education, considered to be an integral part of the education system and for the promotion of international co-operation.
- In addition, the General Conference invited the Director-General of UNESCO to carry out a feasibility study on the establishment of an International Centre for Technical and Vocational Education.

This feasibility study recommended that UNESCO's activities in technical and vocational education should concentrate on matters of technical and vocational education as a component of the overall education system. Based on that feasibility study, which was completed early in 1991, the General Conference of UNESCO decided, at its twenty-sixth session in 1991, to launch the first phase of a UNESCO International Project on Technical and Vocational Education.

Programme Areas

In accordance with that decision, UNEVOC was designed

- to contribute to the development of systems of technical and vocational education,
- to promote infrastructures in research, development and planning, and
- to facilitate information and communication in these fields.

Structures and Mechanisms

UNEVOC is carried out under the responsibility of the Education Sector of UNESCO at its Headquarters in Paris.

An International Advisory Committee has been established by UNESCO to advise the Organisation on the preparation and implementation of the UNEVOC programme.

Many activities within UNEVOC are being executed on a regional basis and UNESCO's Regional Offices play an important role in the implementation of the project. The Regional Offices are:

- Africa:
  Regional Office for Education in Africa (BREDA)
- Arab States:
  Regional Office for Education in the Arab States (UNEDBAS)
- Asia and the Pacific:
  Principal Regional Office for Asia and the Pacific (PROAP)
- Latin America and the Caribbean:
  Regional Office for Education in Latin America and the Caribbean (OREALC),

Following the decision on UNEVOC taken by the General Conference in 1991, the Government of the Federal Republic of Germany offered to host an Implementation Unit in Berlin in the immediate vicinity of the German Federal Institute for Vocational Training (BIBB).

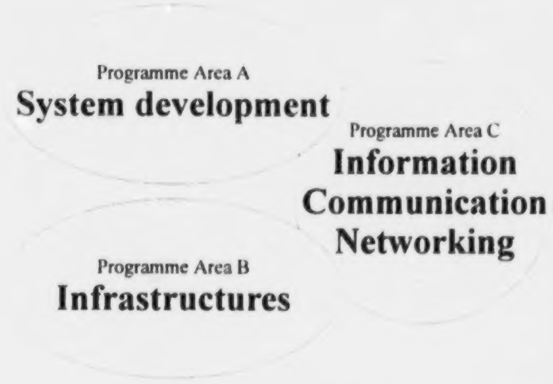
On 17 July 1992, UNESCO and the Government of the Federal Republic of Germany concluded an agreement on UNEVOC. In this agreement, the Government of the Federal Republic of Germany offered to double the budget by matching UNESCO's budgetary input into the project. In addition, UNESCO and Germany agreed to establish a project implementation unit in Berlin. Germany has generously provided premises for this Unit and the budget for office furniture and data processing and telecommunication facilities as well as other initial equipment.

UNEVOC Berlin was officially opened on the occasion of the first session of the International Advisory Committee in September 1993. It supports the overall planning of UNEVOC and is responsible for the implementation of certain activities specified in the UNEVOC programme. The International Symposium on "Future Trends in Adult and Continuing Technical and Vocational Education" was organised and implemented by UNEVOC Berlin.

The Programme for 1994-1995

According to a decision taken by UNESCO's Member States in 1991 and reaffirmed in November, 1993, UNEVOC works in three programme areas:

- Programme Area A deals with the international exchange of experience and the promotion of studies on policy issues. It is devoted to system development in technical and vocational education.
- Programme Area B is devoted to strengthening national research and development capabilities; that is, to the development of infrastructures.
- Programme Area C concerns access to data bases and documentation, and strengthening of the UNEVOC Network; in other words, with information, communication and networking.



Programme Areas of UNEVOC

System Development

The basic concept behind Programme Area A is to enhance the role and status of technical and vocational education within national education systems.

UNESCO held a consultation in 1993 with experts from different regions of the world in order to identify some of the factors which determine the role and status of technical and vocational education. A series of case studies has been prepared on the relevance of these factors within given national education systems.

In order to promote co-operation between educational authorities and the world of work in technical and vocational education, studies have been conducted in selected countries on existing policies and legislation which enhance such co-operation. Regional symposia served to present the experience gathered to policy-makers.

Finally, surveys have been carried out on the relevance of vocational information and guidance for the equal access of girls and women to technical and vocational education. In addition, an International Conference titled "Promotion of the Equal Access of Girls and Women to Technical and Vocational Education" was organised and conducted by UNEVOC. The results have been used as a contribution to the Fourth World Conference on Women in September 1995.

Within this Programme Area, the International Symposium on "Future Trends in Adult and Continuing Technical and Vocational Education" was held.

Infrastructures

Programme Area B is devoted to strengthening national research and development capabilities; that is, to the development of infrastructures. In 1993, UNESCO held a workshop which convened experts from all the regions of the world. Participants compared different methods of development of vocational curricula. The results have been evaluated in the regions. Follow-up activities have been implemented.

Special emphasis is being made on the process of international transfer and adaptation of existing curricula. Differences in applied technologies, in norms, in legislation, in teacher training, etc. have to be taken into account when curricula are to be adapted to a new environment. UNESCO has facilitated the documenting of methods applied and experience gathered in the course of such curriculum adaptation.

Co-operation between educational institutions and enterprises is needed, not only at the system level, but also at the training level. The work place provides a valuable environment for systematic vocational learning. But how can this potential be utilised for the improvement of training? UNESCO initiated a series of studies on mechanisms for co-operation between educational institutions and enterprises, and made the results widely available.

Information, Communication and Networking

Programme Area C deals with access to data bases and documentation, and with the strengthening of the UNEVOC Network. This concept includes, in particular, the development of information and communication structures among specialised institutions. The programme is devoted to enriching the flow of information between specialised institutions in the Member States, as well as increasing the transparency of information and enhancing access to data bases and documentation. UNEVOC will not compete with specialised documentation centres, but rather will assist Member States in efficiently using existing data and documentation.

The "UNEVOC Directory" of leading national and regional institutions active in research, development and planning in technical and vocational education has been prepared and disseminated.

UNEVOC INFO, which is published quarterly in English and French, is one of the activities under Programme Area C.

In order to present information in as clear and user-friendly way as possible, UNEVOC employs the most contemporary means of communication available to it and to its partners. One such means is the Internet. Increasingly, information about UNEVOC, its activities and its documents, is available on the World Wide Web.

Documents dealing with specific topics in technical and vocational education are being prepared and disseminated.

1.2 Greetings Addresses

Representatives from the principal organising agency, from UNESCO, and from the host country, addressed participants on 16 October, 1995.

UNESCO, Mr H. KRÖNNER

Mr Hans KRÖNNER has been Chief of UNEVOC Berlin since its inception in 1993.

Ladies and Gentlemen,

I wish to welcome all of you to this Symposium.

I welcome you on behalf of the Assistant Director-General for Education of UNESCO, Mr Colin N. Power, who had to stay in Paris to prepare the forthcoming General Conference of UNESCO, which will be opened on 25 October 1995.

Mr Power has conveyed the following message to all of us:

> *I should like to take the opportunity of underlining the importance UNESCO places on technical and vocational education. There is no doubt that the world today is changing at a rapid pace and a significant contribution to this change is the further development of technical and vocational education. Socio-economic development depends largely upon the availability and quality of the technical and vocational education provided, and the UNEVOC Project has been conceived by UNESCO as a positive attempt to support this action in its Member States.*
>
> *I should like to make the following observations to the participants present at this gathering. It is obvious that we are seeking educationalists throughout the world to assist us in supporting and encouraging the development of technical and vocational education. I am convinced that this venture greatly depends upon the support it receives in the various regions of the world. This present Symposium has been organised for the benefit of all Member States. It is hoped that the experience gained from it can be disseminated to other states of the world.*
>
> *I am sure that this Symposium will be productive and will provide you with new fields for thought and I should like to encourage you to further develop and disseminate these new ideas in your own country and/or for the future."*

Thank you, Ladies and Gentlemen.

German Commission for UNESCO, Prof. K. HÜFNER

Prof. Dr Klaus HÜFNER is Vice-President of the German Commission for UNESCO and lecturer in economics at the Free University of Berlin.

Mr Chairman, Ladies and Gentlemen, dear Colleagues,

On behalf of the German National Commission for UNESCO, I welcome all the participants of this International Symposium on "Future Trends in Adult and Continuing Technical and Vocational Education" here in Berlin.

This International Symposium is a "joint venture". I am happy about the beginning of common efforts

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of both UNEVOC and the UNESCO Institute for Education which will open new horizons of dealing with an important overall problem. Looking more clearly into the interrelationship between the system of education and work is a traditional task of educational research, and in particular of the economics of education which is, unfortunately, often treated only as an appendix of labour economics.

But we have to deal with the overall problematic from both angles, namely from the education as well as the labour market side. Moreover, by analysing the functions of education and work, we also have to take into account a broader perspective, thereby also taking into account informal education processes as well as non-market-valued work performances.

The combination of both functions allows many solutions. It is difficult to identify solutions on how the functions of the two systems and their interactions are best fulfilled. On the one hand, the rapid technical and social change in our present time demands flexible solutions; on the other hand, inherent stability tendencies of both systems do not allow to deal properly with these new challenges.

I congratulate the organisers of this International Symposium, Mr Hans Krönner and Mr Paul Bélanger, for combining terms which are generally occupied by rather different schools of thought. Looking at adult and continuing technical and vocational education is a new and innovative approach which will, hopefully, lead to new insights.

Your programme very often contains the notion of a change in your reference points, e.g.,

- the changing orientation and policy environment of adult and continuing technical and vocational education;
- the changing provision and participation patterns in adult and continuing technical and vocational education;
- the changes in content and educational approaches; and
- the change and impact of culture on the worker and on work.

This demonstrates quite well your general attitude of approaching this problem. I am sorry that I cannot fully participate in your discussions and exchange of experience. Although only an economist of education by educational and professional background, I am convinced that I will learn quite a lot when reading the minutes of your Symposium.

Ladies and Gentlemen, your International Symposium takes place in Berlin; a city which is in a process of rapid transformation. Originally, the people of the West expected the people of the East to adopt their system of a social market economy, to learn from their structures of and attitudes towards social participation and democratic conflict-solution mechanisms.

Meanwhile, all parts of the German society in both East and West are influenced and will be influenced by their political, economic and social changes due to the unification process.

I hope that some time is left to watch and analyse this process on the spot. You will be surprised how much Berlin and its people have changed due to these challenges over the last five years.

You are in Berlin at a time of a most wonderful sunny autumn. Hopefully, the organisers left you some time to enjoy this autumn in terms of necessary recreation.

As from next week, UNESCO's General Conference will discuss its medium-term strategy until the year 2001. It is a document which, after looking back over 50 years existence, develops strategies for contributing to development and to peace-building. Under the heading "Promoting life-long education for all", you find paragraph 83, and I quote: "In technical and vocational education, UNESCO will foster partnerships between the education sector and industry, agriculture, labour and the private sector. Such partnerships will aim to promote opportunities for learning skills relevant to the world of work, with a view to narrowing gender and economic disparities. The strategy will focus on strengthening national research and development capacities and on the international sharing of experiences, with particular attention given to ensuring equal access for girls and women. To this end, the International Project on Vocational and Technical Education (UNEVOC) will be expanded in co-operation with the International Labour Organisation (ILO) and other partners.

This is expressed in very programmatic terms. Therefore, we depend very much upon your concrete outputs which will be necessary as new inputs for the forthcoming biennial programme of UNESCO. Having chosen this important new perspective of combining different notions of educational structures, functions and processes in their interrelations with the world of work, I am convinced that your results are of major importance for UNESCO's future programmes.

I thank you all for your active participation.
I sincerely hope that the dialogue will be fruitful to

all of you and also offer you fresh, innovative ideas for the solutions of the problems in your particular country.

Last, but not least, I wish to thank the organisers of this International Symposium for having chosen such an important perspective. I know that this is a risky undertaking, but I am convinced that it is worthwhile to plough new ground in order to reach new insights and innovative solutions.

I wish you good luck and success.

Federal Ministry of Education, Science, Research and Technology,

Mr C. BRANDT

Mr Claus BRANDT is an Official within the Division for European Co-operation in Vocational Education and Training in the German Federal Ministry of Education, Science, Research and Technology.

Mr Krönner,

Ladies and Gentlemen,

I have the honour to convey to you the greetings of the German Federal Minister of Education, Science, Research and Technology.

We are very happy about your participation in this very interesting seminar. Unfortunately, however, I can only be with you for one day.

UNESCO has a specific mandate in matters of technical and vocational education as a component of the education system.

The unemployment problem all over the world presents a serious problem today. Therefore, a qualified technical and vocational education is of vital importance to young people and their future.

The "Dual System" of apprenticeship training in Austria, Switzerland and, last but not least, in Germany has attracted much attention because it is associated with relatively low youth-unemployment rates. However, tradition and social consensus are so strong and unique in Germany that the system cannot easily be transplanted. In many countries other forms of apprenticeship and work-based learning would seem more appropriate. These must evolve as the demand for labour involves.

Besides that, the extending and upgrading workers' skills and competencies are essential as well, and must be a life-long process.

The promotion of technical and vocational education is the key to economic and social development of countries, their human resources, and self-realisation in all regions of the world.

We have to focus on improving the following:

- the quality of initial education,
- the school-to-work-transition,
- the incentives for enterprises and workers to invest in continued learning,
- the better balance between post-secondary education and training.

In order to obtain the full benefit of science and technology in promoting growth and employment, especially in the field of human resources, there will be an increasing need to co-operate in the pooling of our national resources for the common good of our citizens. International co-operation is therefore important.

The work of UNEVOC can play an important part in this field. I guess you are very well informed about the work of UNEVOC, so I must not convince you of the necessity for an Implementation Unit like UNEVOC Berlin.

The lively response UNEVOC received from both within and outside UNESCO shows that UNESCO Member States are interested, and also willing, to co-operate at a supra-regional level, in the field of technical and vocational education.

In this spirit, the 28th General Conference next month will have to clarify the next steps of the UNEVOC Project, extend it for another two years, and ensure a comprehensive evaluation of the Project and the activities in the UNESCO regions.

That is why Germany - in agreement with other countries - will propose a separate resolution providing for an intensification of the work in the field of technical and vocational education. This is to ensure its continuous development as an important task of UNESCO and, in particular, to clarify the next steps of the UNEVOC Project, as well as to secure the funding for the Project. It is important to build on what has already been done.

The German Government will furthermore ensure logistic and financial support for this important project.

I hope that the aims of the resolution, and, of course, the resolution itself, will get the support of your countries. I would ask you and your countries to support this motion.

I wish you a successful symposium.

1.3 Report on the third meeting of the UNEVOC International Advisory Committee held in Paris, France, 2-4 October 1995

by Dr Gregor Ramsey, Chair

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(1) Introduction

The meeting was attended by members of the Committee, representing various diverse backgrounds and world regions, the Berlin UNEVOC Implementation Unit, the four Regional Offices of UNESCO, representations of NGOs and the UNESCO Headquarters Secretariat.

The Assistant Director-General for Education, Mr Colin Power, gave the opening address and stressed the importance of the UNEVOC project to UNESCO's aims, and its success to date. He spoke of the importance of links: between countries; between UNEVOC and other compatible organisations such as ILO; and increasingly with industry and a range of enterprises.

He discussed the merging of blue and white-collar worker roles, the importance of entrepreneurial skills, and the need for a re-thinking of the place of technical and vocational education. He questioned whether technical and vocational education was given appropriate status and discussed ways it may be raised. He charged the UNEVOC Advisory Committee to support UNEVOC and develop its activities further. He raised issues relating to the needs of youth, rural development, adult education, adult literacy, and "reaching the unreachable".

(2) Evaluation of the UNEVOC Project

The issue of the evaluation of the UNEVOC Project over the next twelve months was discussed and supported. It was noticed that the Project had begun slowly but there had been a considerable range of outputs over the period since the second meeting of the UNEVOC Advisory Committee. The Committee wished to be closely involved in the evaluation. It was important to have a clear statement from the Regional Offices of UNESCO and of UNEVOC Berlin of the range of outputs from the Project. In particular, the evaluation should mean assessment of the "multiplier" effect of the Project, where resources to support the Project are utilised from other sources, and where the outputs of the Project help countries gain the information they need quickly and thus save them the costs of "re-inventing the wheel".

One of the outcomes of the evaluation will be a decision as to whether the Project should continue in a more permanent form. The support of the German government had been essential to reach this point and it would expect widened support from other countries if it were to continue.

The evaluation should describe what has been most successful, how the results may be duplicated, and provide an approach to the development of new centres in other countries and regions. It was important to build on what has been done.

(3) Other issues discussed

1. The Assistant Director-General said he would recommend the continuance of the Advisory Committee in its present form at least until the future of the Project was known.
2. The Committee for the first time had access to three languages in translation: English, French and Spanish. This assisted the involvement of the South American region.
3. The importance of links and the use of new technologies, such as the World Wide Web and Internet, were seen as essential in the future exchange of information.
4. There was interesting co-operation between ILO, other NGOs and UNESCO on technical and vocational education issues. This was shown by ILO offering to circulate a paper on ways that technical and vocational education systems gain access to resources from industry and enterprises.
5. A big issue for many countries was the training needed to assist them to adjust to being part of a global market economy and the increasing internationalisation of enterprises.
6. The need for expert vocational guidance to assist young people and others to undergo the transition from school to work, and the education and training required.
7. There was still an international issue with the division between education and training, between employment and education. This was exemplified in many countries by separate ministries, and tensions between the two remain. It was important that strategies be developed for them to be removed. One mechanism was for there to be a

single employment, education and training ministry.

8. There is a blurring of the blue-collar/white-collar distinction and dramatic change in the nature of work requiring significant changes in a country's approach to technical and vocational education and training. Occupations appear and disappear at an increasingly rapid rate, having significant implications for the labour market and for training.
9. The case studies from the various regions will be very important and are being disseminated widely.
10. There was a considerable need in all countries to raise the image of technical and vocational education and training, and UNEVOC had suggested ways of doing this.

(4) Chairman's summary remarks to the Committee

The chairman referred to the second report of the Advisory Committee and the tremendous gains made since that meeting. He complimented the work of the UNESCO Regional Offices and particularly the UNEVOC Berlin Implementation Unit for co-ordinating all UNEVOC activities. He said it was important for the report of this meeting to reflect the "quickening" of the project and the considerable expansion of outputs from a relatively slow beginning. Many people had contributed to the project's success and their efforts should be acknowledged and supported. He said the committee should take heart in what has been achieved. The chairman asked a series of questions related to the project:

1) Is technical and vocational education better understood, better supported and more highly valued in the various regions because of the work of UNEVOC?
2) Do governments now have more information on which to base their decisions on establishing new technical and vocational education systems or improving existing ones?
3) Are we now able to establish better connections with the world of work? Do we understand better how to relate the demand side to the supply side in the training arena?
4) Are more and more helpful resources now available to the practitioners? Do we know better how to share our ideas?
5) Have we better networks available for exchanging information on technical and vocational education between countries; between centres; between enterprises?
6) Are we more effectively tapping into technical and vocational education resources that enterprises, industry, and other non-government sources may make available?

In times of fiscal restraint and rapid change, technical and vocational education institutions will have to do different things from those we have relied on traditionally and to do things differently. New methods of transmitting knowledge and new organisations of work and the work place make change in what we do inevitable. UNEVOC provides an important mechanism whereby we can all exchange ideas which will help us build our own systems.

(5) Recommendations

The chairman outlined the main recommendations which would form part of the Committee's Third Report:

1) Technical and vocational education should be a sub-programme of UNESCO activities and be adequately funded.
2) Acknowledge to UNESCO the positive results achieved.
3) Reinforce the visibility of the UNEVOC Project and remove duplication of tasks by identifying the roles of Headquarters, UNEVOC Berlin, and the Regional Offices.
4) Support the convening of a second international congress on the role of technical and vocational education in achieving sustainable development.
5) Propose that a future year be identified as the year of the skilled worker, and that next year's "year of the teacher" fully encompasses those involved in technical and vocational teaching.
6) Continue the co-operation with ILO, OECD and other similar agencies.
7) Endorse a program of work for UNEVOC and propose improving communication with members of the committee, the Regional Offices, UNEVOC Berlin, and Headquarters.
8) Support an increased emphasis on vocational guidance and the development of management skills in technical and vocational education.
9) Pursue mechanisms for generating extra income from other sources and enhance the "multiplier" effect of the base UNEVOC resources.
10) It was a very successful meeting which received work done so far and indicated considerable promise for the future of UNEVOC as an ongoing entity following the evaluation.

1.4 The Programme

The following is a summary of the Symposium. This includes its objectives, focus, participants and proceedings.

Objectives

The objectives of the Symposium were to:

- Exchange the wide variety of perceptions and experiences of the participants;
- Develop therefrom strategies for extending adult and continuing technical and vocational education;
- Make recommendations for implementing these strategies;
- Compile material for the preparation of a substantial report;
- Contribute to the future development of the UNEVOC Project.

Focus

The Symposium focused on three different national economic contexts. These were:

- Industrialised countries
- Newly industrialised countries
- Non-industrialised countries

This focus was directed towards five reference points:

1. The transformation of work in the different regional contexts;
2. The changing orientation and policy environment of adult and continuing technical and vocational education;
3. The changing provision and participation patterns in adult and continuing technical and vocational education;
4. The changes in content and educational approaches;
5. The change and impact of culture on the worker and on work.

Participants

Participants from the following countries attended:

Australia, Cameroon, Costa Rica, Cuba, Germany, India, Mauritius, New Zealand, Russian Federation.

Resource persons and observers from Denmark, Italy, Germany and the International Association of Educational and Vocational Guidance (IAEVG/AIOSP) also contributed.

Proceedings

The principal activity of the Symposium was the presentation by the participants of their papers and the interaction that these presentations provoked. In addition, at the invitation of Dr Jenschke, Vice-President of the International Association of Educational and Vocational Guidance (IAEVG/AIOSP), the participants visited the Career Guidance Centre of the German Federal Employment Services.

2 The Discussion and Debates

The following perceptions were expressed during the discussions and debates within the Symposium. They are recorded here under the following headings. These relate to the Reference Points for the Symposium.

2.1 Adult and continuing technical and vocational education and its relationship with the world of work 14
2.2 The contribution of technical and vocational education to the opening-up of careers for women 16
2.3 The transformation of work 17
2.4 The changing orientation and policy environment 19
2.5 The changing provision and participation patterns 20
2.6 The technical teacher 21
2.7 The changes in content and educational approaches 22

2.1 Adult and continuing technical and vocational education and its relationship with the world of work

There is, the world over, a considerable increase in the participation of persons in adult learning. The question needs to be asked: why this is so? One explanation is found in the transformation of the world of work.

Another question that must be asked is: who are included in the concept or definition of "Adult"?

The answer to this is complex. Surveys often use "having left school for one or two years" as a pragmatic definition. But the definition of "adult" needs to be defined in each country. However, we need a wider perspective of what is embraced by adult education.

One of the biggest issues to do with adult learning is the fragmented nature of adult and continuing education. It occurs in many different areas, under many different "authorities" directed towards many different outcomes. And it is frequently not co-ordinated.

Other issues that must be addressed in this context are those of post-compulsory education, the market economy, how adults learn, and the fact that learners learn often through the medium of teaching.

When young people grow up in a tight labour market, they should be provided early on with the skills for continuing education - learning to learn skills, motivation for learning, enjoyment from learning, etc. They should be encouraged in the development of those skills that support new ways of learning, and they should be provided with such learning.

We must think again through all the issues relating to general and vocational education. In certain important ways, areas of vocational education are becoming more liberal and general, while areas of general education are more vocational, rigid and narrow or non-liberal. There should be no contradiction between liberal education and vocational education. Vocational education can be sterile and repetitive; but it can equally be liberating, and fully developing of the whole person. On the other hand, general education can be stultifying, narrow and restrictive, or it can be liberating and valuable vocationally. There is no real cleavage. There exists an artificial and unreal dichotomy between learning for the market economy and learning for other areas of life that are thought to be provided for by general education.

Japan appreciates the value of true general education in preparation for the world of work, and is including it increasingly as part of its provision of preparation for the world of work. Japan proposes that the more that people are oriented to learning in general, the more they will participate in adult vocational education. Also, because people tend to hold jobs for a significantly shorter period of time now than previously, firms are tending to want general, preparatory education to be provided. The firms would rather support the government's efforts, or those of formal institutions, in this area than to provide more in-house training. It is recognised that this type of education prepares the person for life-long learning, and enables them more effectively to be mobile in the world of work. On the other hand, is it realistic for us to expect firms to provide advanced learning, other than in the very narrow area that fits their specific business. In reality, some of them tend to seek "prisoners of a machine" rather than comprehensively educated workers.

It is important to acknowledge, in this context, that the wage economy is only one part of the economy. There are also the health economy, domestic care economy, social economy. For instance, it has been found that an important way to curb the exploding costs of the health economy is to educate people, through adult learning, for preventative medicine; and not just curative or remedial medicine. Thus, adult learning can be an important means of rebutting the increasing costs of health care. Such factors have to be taken into account when considering the value and the cost-benefits of adult and continuing education.

Genuine interest in human resource development (the competency development of the whole person) should address the benefits that can be included in such development that are beyond mere wages. These include personal development, health and social skills, personal fulfilment, and not just work skills.

The issue of retiring from the world of work is also very significant in terms of adult education. In this respect, we need to address such questions as should we leave a person without competencies for retirement and then have to provide remedial health care for people who become maladjusted or ineffective in retirement? Or is it better and less costly to provide them with competencies that make them effective and fulfilled in retirement?

Initial preparation for the world of work tends to be the prerogative of the government. Continuing education and training for the world of work tends to be the prerogative of the firm or enterprise. There should not be a retreat by the government as a provider of technical and vocational education, but a change in its role. It should shift to adult learning. It should stimulate the propensity of people to go on learning - their commitment to continuing education. It should embrace a cross-ministerial approach. However, there is a problem if the government invests in obligatory unemployment job preparation (as is happening in Australia). This tends to push unmotivated people into learning for the world of work; not because they are motivated to learn but because they want to get the financial support provided by such learning.

In the developing countries there is a "lost generation" of people who have never developed the skills for learning and continuing education. These people will not be included in developments that extend adult and continuing education. They suffer from functional illiteracy. For those in developing countries who are functionally illiterate, the end may not justify the effort required for adult learning. It would appear then that the dichotomy between developed and developing countries may be perpetuated here.

In India there seems often to be no visible results from adult literacy. One needs to distinguish between the impact on formal, non-formal and informal education. Informal training - learning within the villages through traditions being handed on, etc., is by far the largest form of work preparation in India. But it does not lead to the capacity for continuing education and is not properly articulated in educational policy. One of the problems of this factor is that there is policy support for formal education, but not for the non-formal or informal sector, as far as adult and continuing technical and vocational education is concerned.

2.2 The contribution of technical and vocational education to the opening up of careers for women

Even in highly industrialised countries, such Germany, the educational situation for women is, in many respects, colonial. Yet, by statistics, women are the main participants in adult and continuing education. They are also the main participants in labour-office-paid adult and continuing education. Coupled with this, the informal sector of employment is growing and it is supported, in some form or other, by the labour office.

Women tend to participate in adult and continuing technical and vocational education because they want to mix with people, they want the social experiences. They feel isolated in the home. Therefore, they may not be undertaking continuing education for the purpose of vocational preparation. They tend to be involved in adult learning in order to learn more about the world, rather than to prepare for the world of work.

Women scarcely participate in genuine career-oriented, on-going training and education. Thus, they tend not to participate in market-oriented adult education. They tend to be in the service industries. This contrasts with what was once the case. Once they were an essential part of the assembly line - admittedly, a rather low paid, sterile area of work. As this area has been displaced by machines in the developed countries, women are being pushed, as a consequence, into this area of work in the developing countries. This will ultimately lead to massive unemployment of these people when machines take over in the developing countries.

In terms of women in employment, the biggest problem is not the division of male and female vocations, but rather the division between home/family work and vocational work. The world of work actually divides the sexes because it does not include the responsibilities of bringing up a family and looking after a home for the male as well as for the female. Thus, in many countries like Australia, there tends to be a good percentage of women in the second level of jobs, but still few in the first level of jobs: judges, medical specialists etc. The challenge is to know how to integrate the gender on the first level of work rather than the second and third level. A problem for this, in countries like Germany, is that there is a very tight credit system for recognising learning. This makes it difficult to get some forms of learning and experience to be credited by formal learning institutions - especially the universities.

Because girls tend to steer away from taking science and mathematics and tend to select the 'soft option', they disqualify themselves from studying in the more technological areas of vocational preparation. This leads us to ask ourselves whether there is a genuine examination of the transformation of work, and its impact on work for women. The changing nature of work applies equally to women as to men.

The situation still remains that men work with each other, and women work with each other, on the work site. There still exists this division. This is a basic part of the culture and must be changed if there is going to be a true integration of women and men in the work place. The challenge is to know how to open the two cultures to each other - the male culture and the female culture. All education, including adult and continuing education, should help people to understand their culture, the male culture, the female culture, and the differences.

Although women, in some developing countries, are well represented in traditionally male-dominated occupations, they do not tend to participate in politics. Yet, it is important to note, that politics relates to power. Those who posses power will tend to make every effort to retain it. Men have the power of politics at present. They will therefore seek to maintain that power and keep women away from it.

A further problem that exacerbates the above is that men between the ages of 30 and 50 are occupying the higher level jobs, and will do so for the next 20 years. This will keep the younger generation out of those jobs and, thus, contribute to the serious problem of disorientated youth. Partly, as a consequence, we are facing a rising rate of youth suicide, of youth crime, of estrangement from families.

The question is often asked: if a person is prepared for one area of work, and they take up another area of work, is this not wasted training. The reply is that frequently, especially with women, they cannot get employment in the area for which they have been trained. It can always be claimed that there is no real economic benefit from education, or continuing education. This claim can be made because we are not measuring the right things, and we perhaps do not have the means of measuring them.

Because of barriers and indifference, it is important to bring continuing education to the people rather than waiting for people to come to it. We must begin the continuing education where the people are at rather than where we want them to be.

Women in Cameroon tend to be well-employed, but in agriculture. In salaried jobs, they receive the same pay as men. There are issues of sexual harassment, but the situation has not provoked legislation.

In the Indian context, right from birth, the girl is trained by the family for a particular work role: looking after the family and the house. It is very difficult to combat this propensity. In India, there is little unemployment of women in rural areas as they are engaged in agriculture (except by choice amongst the females of the rural middle class). However, they tend to be uneducated and paid lower wages. As they are part of the lower part of occupations, they will not have been prepared for continuing education - that is, they will not have literacy skills. As the multi-national firms come into India, as they are at present, they will force the lower section of employees into unemployment. This is because the multi-national will tend to bring in machinery that replaces the worker and employ the highest skilled worker they can get.

2.3 The transformation of work

What does this mean?

- It means many changes through the introduction of new technology. This is not uniform by any means. However, to respond to these changes, attitudes must also change, as well as technology. As an example, in India the yield of wheat may range from 15 to 50 units per section of land. To lift it to the maximum requires a number of co-ordinated activities: the application of science by the farmer, better education and training, interest in doing so, motivation for higher incomes, higher status, etc. There are significant sections of the work force in India that are not motivated to undertake adult and continuing technical and vocational education. They will question the need to do so as long as they obtain sufficient income for their needs. In order to enhance their motivation, innovative approaches would be needed in the national interest.
- It means new ways of skilling people. But we must recognise that not all countries can give the same learning programs, or prepare people for the same types of jobs. There is a challenge for us to diversify our technical and vocational education and the jobs that we prepare people for. Small countries cannot compete with the large and wealthy countries such as the USA or those found in Europe. So the challenge for adult and continuing technical and vocational education is to determine how we transform our work force to establish and encourage differences. A vital need is to prepare teachers better. They need a more thorough preparation in their knowledge and skills if the education and training system is going to assist economic development better.
- It means the de-skilling as well as the skilling of people. However, if one has to de-skill as well as skill, the process of adult and continuing education is harder.
- It means that there needs to be a transformation of career patterns. It is no longer adequate to develop the skills for one particular job. It is necessary to develop workers more broadly through general education in order to prepare them for an adequate response to new technology and the change in job demand.
- It means a changing biography of work. That is, there needs to be education and training for work, for free time, for leisure. But there are confusing walls between work and non-work which express a false dichotomy. However, there are many jobs where technology is not impacting upon the job as much as is often claimed, and as much as it is on other jobs. This should alert us to the fact that we cannot make sweeping statements about technological change and its impact on jobs, or on adult and continuing technical and vocational education. Also, a factor that needs to be noted is that some forms of work and occupations tend to encourage the development and retention of knowledge and

skills, other forms do not. Agricultural activity may not support the retention of such knowledge and skills. In East Germany, for example, some 30% of the people were involved in agriculture. It was expected that the East Germans would have learning skills and would be able to be developed for other occupations. However, this was not the case. The agricultural job tends to support the loss of learning skills rather than the retention or development of them.

- It means the reduction of work; that is, work is shrinking. As we are running out of work, people will have more free time, and we need to ensure that they have the capacities to use this productively. However, we have to be very careful not to generalise too much or believe that we are describing every situation when we may be only describing some situations. For example, there may be a shrinking of employment in some areas, but there are also expanding areas of employment and shortages of skilled workers. Again, some jobs require a new and integrated type of learning and not a narrow segmented type of learning. In some situations there is no division of labour. In others there is a division of work. All this stresses that there are very significant differences within the whole sphere of the transformation of work and it is very hard to paint a general picture. Of course, we must generalise to a certain extent. But we need also to recognise the exciting positive aspects of the transformation of work. Also, we must recognise the difference between the employed worker and the self-employed entrepreneur. The latter tend to be represented in small business enterprises, and many of them fail - 70%, for instance, in New Zealand. These people need a significant amount of help from adult and continuing technical and vocational education.
- But it also means that work still remains the main means of allocating income and education. In this sphere of transformation of work, it must be recognised that the provision of jobs may just create a "working poor". People may be working, but only at a marginal level in terms of standard of living. This is not the situation that should satisfy us. But there are some dangers. In this context, it is important to determine what developing countries are doing to their rural populations. From this, one can determine the thrust in fragmentation of jobs, the type of employees that are losing out - women for example - the type of jobs that the rural population are going to, etc.
- It implies that the transferability of skills is very important. However, the occupational context in which learning occurs is as important as the learning itself. If it is occurring in an occupational context in which literacy does not figure significantly, such as agriculture, then the learning will not be retained, especially literacy. If literacy is not a part of daily life, then it will be hard to develop it sufficiently to support adult and continuing technical and vocational education. There are major differences caused by the daily use of literacy at work. If this does not occur, then literacy is not significantly developed in that context. If it does, then literacy can effectively be developed. But we must not avoid the essential reality that it is hard to develop literacy in an illiterate context.
- It means the accurate profiling of jobs. However, a problem in this area for continuing vocational education is that many enterprises are not willing to supply the information about job profiles, etc. that is necessary to guide such education. Thus, demand driven factors may not work if it is not known what skills are needed at the points of demand.
- It means the role of the government must change the world over. It is important for us to determine the role of bureaucracy in the different countries. To what extent does bureaucracy inhibit adult and continuing technical and vocational education; to what extent does it support it? The role of bureaucracy in India, for example, is very important. It can make things happen or not happen. It needs to be made more responsive as well as more accountable. In general, the role of bureaucracy tends to be that of a broker of supply and demand. There needs to be a shift from the government being the provider of education and training to it managing demand. It needs to move away from the supply side to the side of the managing of demand for adult and continuing technical and vocational education.

The solutions to these problems tend to be different from one country to another, especially among small countries vis-à-vis large countries. However, the problems tend to be the same. Countries, of course, are not only small or large in terms of population, but also in terms of geographic size. These differences make a difference to the solutions to the problems. Taking India as an example of a large country, we can see that one can have as much diversity within a country as between countries. India has regional differences within the country: cultural differences, religious differences social differences, economic differences, and educational differences.

All in all, the transformation of work must be seen in terms of particular countries, particular cultures, particular areas of work and employment, particular types of technical and vocational education needed for the preparation of people for life in general and the world of work in particular.

How does the transformation of work affect women?

- Women have a strong emphasis on the transformation of work itself; they are not just affected by it. Indeed, a piece of research was undertaken on the premise that women would undertake work in order to be empowered. It was found, however, that their first reason for such work was that of economic autonomy.
- It is inevitable that the culture of work will change because of the new technologies. In India, for example, the participation of women in employment is often a cultural factor. Some women will not go to work because they see it as lowering their status, or standing and respect, among others within their culture.
- Women may not attain the more career types of work and education unless they are supported in doing so. In Mauritius, for example, the evolution of the woman worker resulted in their transferring from the sugar economy to textiles. At first, they had to work in very rough conditions. Then these improved and now they work in the same conditions as men. This improvement of the environment is encouraging more women to enter the work force. Further, many industries are offering numeracy and literacy education now, which is supporting adult and continuing technical and vocational education.
- Women need to be involved in the power structure of work, such as management and unions, if they are to attain a true position of equal opportunity.
- There are no problems for women to participate in adult and continuing technical and vocational education. They just need the support, essentially in the culture and attitudes to work. While it may be claimed that some women do not want to work, one has to put this into its right context. Some women may not want to work in the particular jobs that are available to them. These may not fit the skills they have developed. The jobs may be very menial. Before one can make the claim that women do not want to work, one has to ensure that they are thoroughly prepared for work - and work of the nature that they desire. Then they can determine whether they want to work or not - and only then. That is, education and training needs to be offered first, then they have a genuine freedom to decide whether they want to work or not.
- Men can obtain a greater independence from the employer through the transformation of work that changes the work role of women. This is so because the two incomes of the husband and wife mean that the man is not as dependent upon his own job for financial support. This can give him sufficient independence in his work situation for him to feel confident to contribute to ideas and decision making in the enterprise and to express contrary ideas, etc.

2.4 The changing orientation and policy environment

The economics of education is vital; but few understand it. For instance, the discussion on financial requirements of adult and continuing technical and vocational education does not necessarily imply more resources, but the need for the redistribution of resources. Thus, it is vitally important to address the changing financial structure in adult and continuing technical and vocational education. On the other hand, we have to be careful not to be discussing things that have failed already; that have already proved themselves to be insufficient in terms of financing adult and continuing technical and vocational education and in terms of producing the human development that is necessary for our present and future society. We must also remember that there is a greater commitment needed than just financial resources. But the financial incentive is of considerable significance. Also, there needs to be an interaction between the supplier of adult and continuing technical and vocational education and those who demand it. The supply side can be too slow to adapt to the demand.

Even more important than the financial commitment is the commitment of the employers to training. One of the great challenges is how to get business people to assume responsibility for adult and continuing technical and vocational education. The policy environment has to be created, if there is none, that will support the greater provision of, and involvement in, adult and continuing technical and vocational education by industry. There must be a mechanism for creating this. The link between adult and continuing technical and vocational education and industry is vital. The orientation of industry and educational institutions and the policy environment must support this. In Costa Rica, there are now increasingly strong links of technical and vocational education with industry. In Cameroon, a recent meeting of all relevant parties urged private industry to participate in and assist adult and continuing technical and vocational education. In New Zealand, there has been a kind of attempt for industry to take over the control of technical and vocational education. However, there is a concern on the part of some that, if this development went too far, one would find that industry people are making professional education decisions that they are not qualified to make - such as curricula decisions.

Further, the idea that the individual commitment should co-ordinate with the social requirement is rather unreal. We must introduce incentives - financial - to bring individual aspirations into harmony with social requirements. Norway was given as an example where the social commitment to women's role is great, yet financial incentives had to be given to get the educational commitment into tune with this.

However, we may be focusing too much on industry. With employment running out, we must address a far wider development of people than just for work related development. We should be educating people in such a way that they do not feel that they are part of a system. Small is beautiful. We should be positive and optimistic in terms of the value of adult and continuing technical and vocational education. In some cases, the situation prevails where the larger industries are failing while the smaller industries are succeeding.

Again, we need also to consider the subjective/needs side of human development through education as well as the materialistic side. We need not only to acknowledge the place of achievement as a motivation, but also to recognise the need for a sense of being productive, of producing, of creating. People need to feel that they are being productive. There is a broadening need for an educated work force. The problem is to get industry to acknowledge this. For example, in Germany, industry is very committed to technical and vocational education. But it is much less committed to adult and continuing education, and to adult and continuing technical and vocational education.

We must also think through the broader issues of adult and continuing technical and vocational education. It seems that we are constantly talking about adult and continuing technical and vocational education in the context of industry. What happens in the situation when there is no industry? We need to expand our perspective of the productive role of a person. Industrial requirement is only a subset of the productive role. Again, when we talk on about industry and its involvement in technical and vocational education, we have to ask the questions: who or what is industry? There is not enough insightful and analytical thinking in these areas. The language often tends to be slogan oriented and superficial.

The question was put as to whether higher education would assume its responsibility in the whole sphere of adult and continuing education. It was doubted. In Germany, for example, the definition of higher education tends to be rather narrow. Universities would probably not assume a role in adult and continuing technical and vocational education unless some real financial incentives were given. In Mauritius, a National Accrediting Agency has been introduced in order to encourage the crediting of adult and continuing technical and vocational education into the career path for higher education.

2.5 The changing provision and participation patterns

There is a demand for adult and continuing technical and vocational education, but good providers are frequently scarce. Of course, there are differences of questions and answers with respect to adult and continuing technical and vocational education in terms of the different sectors of enterprise: industry, the service sector, government, administration, financial, private service, etc. We must determine how the sectorial aspects relate to recruitment and participation. All in all, the question must be asked: who needs adult and continuing technical and vocational education?

There is a rich mix in the whole educational scene of employers, universities, teacher-training institutions, schools, government institutions, private educational institutions, etc. This mix must be co-ordinated in such a way as to maximise the benefits to adult and continuing technical and vocational education. The problem of deciding where to locate adult and continuing technical and vocational education depends very much upon the country itself. The important thing is that adult and continuing technical and vocational education must overlap with all other forms of education if it is to be effective. This area of education must be constantly available to all people.

People come to education to further their lives, their opportunities, their standard of living, their personal development, their interests. They must be able to do so. If this is the case, we must talk more about pathways. Life-long learning is very important. We cannot turn our backs on continuing education. It must be available, but also relevant. Thus, it is not just necessary to ask the question as to what we do in post-compulsory education. We must also question ourselves as to what is the pathway to this education. There is also the question of the size of the system in which education and training is occurring. Do some things work in one area that do not in another? Obviously yes; but the question is: what works in what context?

Often, the demand for higher education is far greater than for technical and vocational education, and greater than is needed. Prestige and social acceptance is very important to the demand for higher education. We have a values problem here. The problem is of valuing a different path of education. In India, most people seek higher education. But, after they get into it, they often feel that they have made a wrong choice. These people really need technical and vocational education, but would this help? Not all graduates from technical and vocational education institutions are employed. Agriculture is the backbone of India. Technical and vocational education needs to relate to this and support it. The demand for technical and vocational education in agriculture is very high but there are few suppliers. The opportunities for training in agriculture are being diminished. Again, information technology needs to be supported. The question again for India, as for the rest of the world, is: who should participate?

This all leads again to the need for the commitment of private industry to adult and continuing technical and vocational education. If industry does not have a real commitment to support adult and continuing technical and vocational education, then is must be given incentives, or pushed into giving such support. It is a question of politics. Action must be taken that forces industry to give the necessary support. Frequently, industry tends to react to this pressure by saying that they will only give financial support to adult and continuing technical and vocational education if they can control the outcome and participate in the decision-making related to it. In Greenland, a program was launched for funding the technical and vocational education system where industry pays into a fund, and only then can they participate in the administration of technical and vocational education.

Coupled with this is the problem of recruiting teachers. If teachers have had no real world experience in their trade or profession, then they are of little value. There needs to be a new dialogue between industry and universities. In Cameroon, the universities are being "professionalised" in order to give more relevance to them. That is, a chemical student is also introduced to chemical engineering, etc.

2.6 The technical teacher

There is a very great need to give renewed effort to produce better technical and vocational education teachers. But, where do we find good teachers, and good trainers? Industry must support the development of these. But, also, we cannot produce good teachers and trainers unless we raise the status of teaching. There is a considerable challenge in the area of the relevance of the knowledge and experience of a teacher. Has the teacher had real occupational experience? Can this real experience be maintained? Are the curricula, and other teaching professional aspects of education, really relevant to the occupational scene? In smaller countries, it is perhaps easier for a teacher to go back to industry for further experience and development than it is in a larger country. But, even in this situation, it is perhaps hard to hold the person as a technical teacher and trainer.

A study on technical and vocational education teachers indicates that the good ones, in terms of technical qualifications and skills, will tend to be enticed away by industry. Industry has the capacity to pay better wages. It may also be that the position in industry has better status. This situation tends to be more true in some areas of technical and vocational education than in others - engineering more than trades. Also, it tends to be more true in times of economic prosperity and full employment than in times of economic difficulty and high unemployment. Of course, unemployment may be much more characterised by some occupations than others. There may be high employment and perhaps even labour shortages in engineering or technological occupations, while there is unemployment in other occupations. Some contend that it is important to realise also that a technical and vocational education teacher is a teacher and not an industry person. Thus, the teacher may be quite well enough equipped for teaching (in terms of technical knowledge and skills) but not well enough for industry. Thus, the teacher preparation may require of the person a lower level of technical knowledge and skills in a particular occupation than would be required for employment in that occupation.

However, in the preparation of technical teachers, one must consider the overall emphasis that needs to be made in education. Increasingly, it is becoming recognised that general education with generic skills must be emphasised. We must also recognise that the process of learning is as important as the product of learning. The process may well result in very different types of outcomes - especially in the area of attitudes, feelings and sensitivities - according to the type of process used. Have we really an accurate profile of the technical and vocational education teacher? Do we know what knowledge, skills and attitudes are really needed by such a teacher? There is an important issue of new jobs. There is no provision for training in these areas and yet in some senses they are exploding: technical and vocational education, music industry, communications, etc.

It would seem that every person has a bit of the "teacher" in him/her. We ought to tap into this for initial teacher training. On the other hand, the teaching profession as a whole, and especially technical and vocational education, must recognise that some people are not cut out to be teachers and they ought to be kept out of the profession. Industry must also recognise that teaching-training is a real profession with sophisticated occupational competencies as much as in any other area of industry.

For conditions to be changed in the technical and vocational education teaching profession that encourage and support further professional development, there must be a change in industrial relations. A far greater degree of trust must be established within the world of work wherein the worker is willing to trust management, and management will not betray that trust.

Teaching assessment is essential to accountability; to the right selection of persons for teaching. However, very often the teachers refuse to believe that the student can evaluate them. There is much resistance created to student assessment of teachers by the teachers themselves. Yet the whole of industry has tended to move towards evaluation and quality. Industry therefore expects this will also apply to the teaching profession.

Competency-based learning tends to draw the teacher away from the traditional authoritarian model of teacher/pupil to the teacher being a Resource Person. In this situation there is an emphasis on the learner assuming responsibility for learning and drawing upon all available resources, the teacher possibly being one of these resources. The teachers/trainers are managers of learning. They must manage all resources. We need to diversify teaching: lab technician, instructor, teacher. Then the teacher can be the manager of all resources. Of course, this may not be acceptable to unions.

In primary industry, there tends to be a loss of traditional skills or competencies as technology causes these to be redundant. There needs to be a technical and vocational education teacher training system that preserves these traditional skills. Again, in the public sector one must recognise that some of the skills in such areas as health care and social care come from women's traditional areas of responsibility. We need to preserve these against the sterilising effect of technological advance. We must ensure that the important elements of these professions are not lost by industrialisation.

2.7 The changes in content and educational approaches

There are many new educational and training delivery systems: computer aided instruction, competency-based instruction, modular learning, simulation, open learning. All these should be harnessed in the delivery of adult and continuing technical and vocational education. With respect to delivery, we should have no prejudices. We should be willing to try out new ideas and methods. But we must be aware of the possible problems.

India, for example, is very committed to open learning. It is committed because it sees that through this educational approach it is able to reach many more of the population with education than before. It supports the accreditation of learning, it allows for the recognition of prior learning (RPL), and supports the development of genuine career paths through adult and continuing technical and vocational education.

The curriculum design is very important. We must ask ourselves what is the knowledge that a person must know? This should include (a) ability to make up one's own mind - to be a decision maker, (b) the ability to appreciate what is beautiful, (c) the ability, willingness and freedom to express opinions, to communicate, even if these opinions are contrary to what others think. The work processes are ever changing, and more and more rapidly. Therefore, the learner and the content must take this into account.

The learning content has particular significance in terms of determining the point of departure for the learner - and applying this to the curriculum. In determining content, it is essential to know the exact content and the exact competencies needed for the occupation in which the worker is placed. If the person does not have the relevant skills that person is essentially unemployable. The DACUM system (**D**eveloping **A** **C**urricul**UM**) is an efficient and effective means of determining this.

The content must not only include technical knowledge and skills, but also social competencies, business and management competencies, as appropriate. Of course, there must be a strong technical content determined by the particular occupation, relevant to it, and continually up-graded in terms of the changes in the various occupations. It is essential that there is also a preparation of the workers in terms of generic skills in order that they are able to be mobile in the work force, change skills as necessary, change occupations as is necessary, up-grade skills and be self-directed in learning.

The agriculture worker, too, needs to be more sophisticated in knowledge and skills in order to improve the application of new technology and science to the agriculture industry. There needs to be an emphasis on sustainable agriculture through the use of organic fertilisers, the protection of the environment and economic factors that are supportive of these.

As always, the financing of technical and vocational education teacher training and of adult and continuing technical and vocational education is very important. This is relatively easy when the economic situation is robust. However, when it is depressed, it is far more difficult. Technical and vocational education and technical teacher education tend to be the first to suffer.

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3 Recommendations

After four days of the exchange of ideas and of engaging in discussions and debate, participants developed the following as being essential components for recommendations on future developments in adult and continuing technical and vocational education.

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3.1 Language

Significant discussion was had concerning the use of terminology. It was recognised that terms such as "technical", "vocational", "training", "education", "teacher", "trainer", "resource person", "human resources" and others pertaining to the world of work have different meanings and connotations in different contexts and different countries around the world. Therefore, it was thought to be of little value to debate the various meanings of these terms or to try to confirm them into one particular set of definitions. However, within this document, and throughout the debates of the Symposium, the definitions given in the Convention on Technical and Vocational Education adopted by the General Conference of UNESCO at its twenty-fifth session in Paris, 10 November 1989 were and are applied.

These state that:

(a) for the purpose of this Convention "technical and vocational education" refers to all forms and levels of the educational process involving, in addition to general knowledge, the study of technologies and related sciences and the acquisition of practical skills, know-how, attitudes and understanding relating to occupations in the various sectors of economic life; and

(b) this Convention applies to all forms and levels of technical and vocational education provided in educational institutions or through co-operative programmes organised jointly by educational institutions on the one hand, and industrial, agricultural, commercial or any other undertaking related to the world of work on the other hand.

3.2 General principles

The following general principles were accepted:

- Adult and Continuing Technical and Vocational Education (**ACTVE**) is of primary importance within education and the world of work. It is essential to the generation of the wealth necessary for overcoming poverty and for lifting the standards of living for all people. For it to be efficient, it needs constant access to scientific and technological information and a universal medium of communication.
- There is a need for systematic policy on ACTVE within all countries. This policy must ensure that it is relevant to the following contexts:
  - international
  - national
  - sub-regional

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- It is important to establish a motivation for ACTVE among older persons as well as among the young. This implies that there be no barriers to it such as age, gender, religion, culture, and class. This will be assisted by a recognition of technical and vocational education skills and learning in the formal educational system, and also the possibility, through TVE, of gaining access to, and of obtaining credit within, higher education. To support this, a recognised and accepted system of vocational qualifications needs to be established.
- Important elements of ACTVE that must be fully addressed are age-structure, change, the handicapped, women, rural workers and migrants.
- There needs to be a balance between government and semi-government bureaucracy, the job market, educational institutions, private enterprise and tradition in shaping ACTVE.

3.3 World of work

The nature of work must be re-examined. For example, are voluntary services work? Is learning work? Are the manifold duties of the modern adult work? Are domestic duties work?

ACTVE must take account of the changing nature of work. This may be done by training centres and technical and vocational education institutions establishing and maintaining relationships with industry through exchange programmes. On the other hand, formal education must be broadened to include science and technical education in order to facilitate learning within technical and vocational education later. Managers, both in the world of work and in educational institutions, need to be trained in human resource management. Job related training must be implemented with the participation of industry in the most cost-effective way. Multinational companies must have pressure put on them to be involved in formal training and to give support to the development of technical and vocational education world-wide.

Education and training for the world of work must be integrated into it if it is to be effective, efficient and relevant. The world of work must be more significantly involved and take greater financial and professional responsibility for ACTVE. Further, initial and continuing preparation for and the maintaining of efficiency within the world of work must provide for the development of the whole person.

There needs to be an international perspective on how to care for employees, and the focus of employment must be towards as many opportunities as possible. It should not be excessively driven on by technological development. It needs to reinforce such values in the worker as personal responsibility, commitment to quality, co-operation, no compromise with standards, honesty, etc.

3.4 Culture

Culture affects the productive capacity of the worker, and, at the same time, access to ACTVE. Thus, the manager has to consider the different cultural backgrounds of the worker to maintain high morale and good communications. It is important that there is a positive and healthy balance between accommodating cultural differences, including the culture of women, and the unifying effect resulting from the internationalising of work.

3.5 Women

Research in many countries has proven the exceptional relevance of adult learning for women: for entering or re-entering the labour market, for literacy, for socialising with the wider public, and for their participation in public and political life. Therefore, in the intermediate future, women must be given the right and capacity to develop their own ACTVE and should be provided with financial and other resources to do so.

3.6 Migrants

Adult and continuing technical and vocational education is developing in a monolingual culture which tends to be dominated by competition. There is a need in that environment to protect national cultures and individual dignity and freedom. However, this must also be balanced with the significance of migrants in the world of work. As a result, migrant education is an essential part of adult and continuing technical and vocational education.

3.7 Equal status

There must be equal status for ACTVE. A suggestion was made that all post-secondary institutions could be called "universities" so as to create a seamless system of education. There could be an international amalgamation of institutions to ensure the exchange of information, wider opportunities for students, etc. Learning needs to be far more student-centred. Students need to be able to choose from various programmes according to their own preferences and needs. A contribution to this would be the development of a "seamless" system of credentials to enable students to begin with certificates, to move on to diplomas, degrees, etc., or some amalgam of these.

3.8 Funding

Government funding for post-secondary education should relate to employment outcomes. It must be restructured to take some of the financial drawing-power off universities. To the extent possible, technical and vocational education programmes should be encouraged to generate further resources for its development. This has implications for better teaching/learning. Different alternatives for the implementation of a training programme have to be studied and costed before a decision concerning implementation is taken.

Governments should be requested to establish parity of funding for technical and vocational education with university education, and a funding system that rewards educational and training institutions that succeed in enabling their graduates to obtain employment. All the social partners - the government, employers and workers - should join hands to finance ACTVE. Further, funds for the development of ACTVE should move away from direct government control to allow for the attainment of the objectives of this area of education and training in a flexible manner.

3.9 Responsibility

Adult and continuing technical and vocational education must not be only in the competence of industry or only in the single competence of government. It must be a partnership. Government, industry, unions and non-government organisations must form consortia to decide on its contents and organisation and share the costs.

3.10 Teachers

To ensure that good teachers are employed that can achieve this outcome, the status of the technical and vocational education teacher must be improved and every effort should be made to ensure that teachers are at the cutting edge of their discipline.

3.11 Learning

ACTVE must be learner-centred, reason-oriented, user-friendly and recognise prior learning. It needs to contain a values-dependent perspective of people. On the other hand, trainer-training must be so effective and efficient that the authority, competence and credibility of the teacher/trainer commands respect and gives genuine assistance to motivation and learning. It must have the discipline of learning attached to it as well as the joy of learning. Generic skills need to be thoroughly developed. There must be an articulation between it and general education. This articulation will differ with different disciplines and occupations.

It needs to employ new approaches to learning such as open learning systems, the use of educational technology, information technology, modular systems, distance education and competency-based education. This requires good teachers, good managers and good organisational and technological infrastructure.

It must be ensured that learning outcomes are related to the process as well as the outcomes. ACTVE should not be narrowly circumscribed by behaviourally related outcomes. It is important to foster the joy of learning as well as the rigour and discipline of learning.

3.12 Life-long learning

Learning and experience within technical and vocational education must be recognised and credited in order to give access to higher education and support life-long learning. Further, it must be recognised that there are stations and breathing points in the course of life. These must not prejudice further development, either personally or professionally. There must be greater flexibility in the whole education and training system, especially between education and employment systems in both directions.

The sensitive periods of learning for an adult, such as the first three to five years of professional life; or during times of crisis, such as divorce, the commencement of parenthood or when children first leave homes, must be particularly addressed.

3.13 Curriculum

It is important to ensure that all programmes include contextual subjects such as professional ethics, cultural sensitivity, entrepreneurism, communication skills and a foreign language. UNESCO must put pressure on all governments to introduce in all programmes a second language especially in developing countries.

3.14 Guidance and counselling

Vocational guidance and counselling should be given a high priority. This should include placement and employment counselling for vocational orientation, and placement into ACTVE. Thus, the whole education system must be reformed to focus on the reality of life-long learning. In support of this, national systems for technical and vocational education should be developed that allow for lateral entry/exit points. This system should aim at creating a learning and skilling society from childhood through to retirement.

3.15 Communication

Mechanisms for improved communication, such as Internet, must be hastily developed world wide. This can lead to international co-operation in ACTVE that includes teaching by recognised specialists using educational technologies and Internet.

3.16 Implementation strategies

Various strategies were suggested as the means for ensuring the achieving of the recommendations made in the Symposium. These were:

- There must be a clear and open exchange between practitioners and researchers in ACTVE. This could result in the development of basic indicators for the provision of, and participation in, ACTVE.
- There needs to be a redefinition of adult and continuing technical and vocational education towards more generic definitions of learning outcomes.
- ACTVE has to make full use of every opportunity - formal and non-formal education, institutional and self-learning, technological means, distance education, open learning - in order to make it accessible to all people.
- ACTVE must make full use of local leaders in science, technical disciplines, the arts etc. for research, teaching, and policy development and orientation. Further, it must include a full understanding of the social relations of work. It must introduce at the local level the contents of, and commitment to, the inclusion of cultural values in technical and vocational education programmes.
- ACTVE, in developing countries, needs to increase abilities in information technology. Projects like UNEVOC should seek and give support for such activities.
- There must be greater co-operation between ACTVE and unions. Unions need to support this area of education to the fullest extent possible.
- The highest priority must be given to affirmative action in non-traditional technical and vocational education.
- There must be co-operation among the relevant UN Specialised Agencies - UNESCO, ILO, WHO, FAO - with respect to preparing people for, and maintaining their efficiency within, the world of work.

3.17 Conclusions

In essence, the Symposium was designed to alert relevant parties who are responsible for technical and vocational education and its developments around the world to the contemporary and anticipated factors that must be addressed by this area of education. If these factors are so addressed, then TVE will fulfil to the optimum its potential to strengthen individual societies, economies and the world of work. There is no doubt that the Symposium addressed a comprehensive range of these factors. It analysed them, debated them, placed them in their essential contexts, and made insightful recommendations for strategies to be applied that would assist the future development of adult and continuing technical and vocational education.

4 Participants' Presentations

4.1 Adult and Continuing Technical and Vocational Education in India: From Present to Future by Arun K. Mishra and Ajit Kumar

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(1) Introduction

What makes the changes in content and educational approaches more critical is the steep rate of change in technological advancement and a slow rate of change in work culture, particularly in India. Revolution in information technology and fast changes in technology along with highly competitive labour and product markets require regular revision of vocational courses, content by experts from Research and Development institutions and industries, and a feedback mechanism to monitor the changes. This also demands stress on transferable generic skills over vocational specific skills in the content of courses. In this process the boundaries between the general science stream and the vocational stream becomes fluid.

India is a populous country having a variety of cross sections in society. There are hundreds of traditional trades and vocations which are vanishing because of fast growing newer technologies and lack of formal training and systematic approach in imparting work-related non-formal basic education for out of school children, and also because of certain other reasons.

A different educational approach is needed which may be more suitable to the system of vocational learning. There are limitations of infrastructure, professional teachers and funds in implementing properly the formal vocational education programmes.

The realisation of the need for adult vocational education in the formal set-up is a newly perceived concern in India. Even though the system of technical education for the age group 15/16 to 18/19 years has been in existence for more than half a century along with the system of adult vocational training (not education) under the ministry of labour, the coverage has remained very small for a large country of the size of India. The coverage, in terms of the training fields, has also been much limited. In addition, the system of continuing technical and vocational education has remained largely confined to various users and in-house shop floor training by enterprises/factories etc. The economic reform measures currently underway highlight the significance of retraining, continuing technical and vocational education and skills upgrading. But organised structures/training systems are yet to emerge on any significant scale.

In view of the paucity of information on the subject of continuing technical and vocational education and its possible location in enterprises/work places in future rather than in colleges/universities or other educational institutions, it is intended to keep the treatment of this subject outside the scope of the present paper. The issues, questions, trends and problems addressed in this paper are, therefore, largely restricted to the experiences derived from the programmes of adult technical and vocational education in the system of general education (polytechnics and industrial training institutes excluded). This is with a view to limiting generalisations arising out of diverse systems which would lead to some undesirable ambiguities.

The paper aims to concentrate on the content of, and educational approaches to, adult technical and vocational education. In particular, it will analyse the new technical and vocational education programmes under general education at the first degree level, and other such programmes in the system of higher education beyond 12 years of schooling. The clientele broadly comprises the 17 - 20 age group.

In terms of treatment of the subject matter, the content of these courses, their place in overall first degree curriculum, various instructional approaches, including distance learning, and other related aspects, have been taken up for discussion. The resolution of some fundamental issues relating to women and other disadvantaged sections has also been attempted.

(2) Information

The educational structure in India is generally referred to as the 10+2+3 pattern with 10 years of general education followed by 2 years of diversified streams. The last 3 years belong to the first degree stage. We will be focusing our attention on the vocational education programmes at different levels and through different approaches and their vertical and horizontal linkages.

The following adult technical and vocational education programmes have much relevance to the theme of the symposium:

I. The University Grants Commission courses and others in the higher education system.

II. The courses under the Open Learning System.

III. The Non-formal adult training courses.

IV. Post X+ diploma programmes and those under other training systems (not in general education).

These provide the backdrop for much of the present writing, perceptions of trends and reflections for the future. In addition, the informal and traditional training modalities of rural India have been taken into account wherever necessary.

The major programme of vocational education in the general education system is offered in higher secondary schools over a duration of 2 years (grades XI-XII). They aim mostly at self-employment and unorganised sector employment. Only a few of the courses provide education and training for employment in the organised manufacturing sector and other organised industries. The age group being 15+ to 17+, the students belong to early adulthood. But keeping in view the location of these programmes in the high school sector, as far as this paper is concerned, they are not included in the concept of adult technical and vocational education. Yet these have been taken into account for the purpose of articulation with adult and continuing technical and vocational education. It is important also as a future trend in technical and vocational education for the coming decades or so.

The University Grants Commission has launched a programme of vocationalisation of the first degree stage since 1994 as a policy measure under National Policy on Education (Revised Formulation 1992). Nearly 35 vocational courses are taught in about 200 colleges. The curriculum consists of one third for a vocational elective along with two other academic electives over a period of 3 years. In all, 810 instructional hours are devoted to each of the three electives. The vocational elective is taught in collaboration with a nearby industry enterprise and employs on the job training as a teaching modality. As a model, it provides a blend of general and vocational education at the first degree stage for the first time in India as an organised central intervention. It is too early to analyse the programme in terms of its execution, efficiency and outcome since it has been in operation only for 1 year. As an innovative step, however, it shows a trend for the future in adult technical and vocational education.

The open learning system is also a recent development with 7-8 years of history in the educational field. The National Policy on Education 1986/92 has provided a place of high priority to the open learning movement, and several open universities and open schools are being established throughout the country. Although these institutions started out with the traditional role of offering academic degrees, they have now incorporated a new dimension of technical and vocational education in their course offerings in the last 5 years. Technical and vocational education through open learning is, therefore, an important development with far-reaching consequences for adult and continuing technical and vocational education for the future. Their significance lies in the fact that they offer much flexibility for recognition of prior learning, modular courses, individualised and self-paced learning, add-on competencies, and such other desirable features that are often not possible in the traditional formal system of schooling and higher education.

There are a myriad of vocational and technical training courses available through non-formal channels - voluntary organisations, organised public/private sector, such as Indian Railways, Nationalised Banks, large corporate houses, Post and Telegraph/Telecom Departments, various ministries of the central and state governments. The data on these are not available. However, it is known that they follow diverse curricula, lack proper certification, and mostly meet the internal requirement of the enterprise. The initial training has little or no face value for the outside world. Vertical articulation of these courses for professional mobility as well as horizontal articulation with general or academic proficiencies has to be carefully planned to provide a stable and integrated system of technical and vocational education and training for the future economic and industrial scenario of the country. Such a scenario is not expected to be much different from the other developed nations and pathways. Reforms in technical and vocational education strategies would have to draw significantly from the experiences and approaches followed in other countries.

The age old traditional system for technical and vocational education existing in rural India is not age group specific and caters to learners of all age groups, but mostly till 25-30 years of age. In contrast to formal and non-formal systems, it may be called informal where skill formation is by tradition - family based or based on teacher-disciple relationships at the work place. Some of the examples of the trades covered are carpentry, blacksmithing, metal work, weaving, handicrafts, goldsmithing, carpet industry, cane and bamboo work, rural housing, leather crafts and footwear, priesthood, and many others, besides those relating to agriculture, horticulture and livestock production, rural business and the like. Quantitatively, the trainees under this modality may, by far, exceed all other systems put together.

The concept of life-long vocational education, though accepted in principle, is yet to be put into practice. The systems and structures are not yet in place; but it is felt that initial vocational education in schools should be effectively articulated with the new vocational programmes of the UGC. This would call for content modification at both the levels so as to provide continuity in terms of hierarchy of competencies. As of today, the two stages are rather disjointed, unlike the academic courses which are well dovetailed hierarchically at the two levels.

However, it is important to bear in mind that the approach to instructional organisation is strikingly similar in the two situations. Both the programmes depend on collaboration with the industry/employment sector for effective teaching/learning. Both underscore the role of community personnel as a faculty resource. And both incorporate the concept of resource generation with a view to deriving economic and pedagogical benefits. It also calls for expansion of coverage of the UGC programmes in terms of the number of vocational specialisations as well as the number of colleges throughout the country. To be precise, the higher secondary courses are taught in 6000 schools in a total of about 17000, while the UGC courses cover only 200 out of 7000 colleges. There are 160 specialisations taught in the higher secondary system, while the UGC programmes provide only 35 specialisations of which about 20 have some commonality of topics.

In terms of boundaries between general and vocational content, the UGC courses provide one third of the total time (810 hours) in 3 years for the vocational specialisation, while the rest is spent on two related academic specialisations. For example, the vocational course in fisheries goes with the academic fields of chemistry and zoology. In contrast to this, the curricular philosophy for the higher secondary stage is different. It provides for an all-inclusive vocational specialisation occupying two-thirds of the total time (1400 hrs.) in a two year block. The remaining one-third is devoted to the development of communication and entrepreneurial skills. The practical training is further reinforced with one full year of apprenticeship where the facilities of the work place are utilised for actual learning of the trade in the real life context.

As a future intervention, these disparities in general, and vocational weighting, will have to be ironed out to provide a continuing education system. The system would also have to offer the flexibility of lateral entry by recognising prior learning. It would also have to be characterised by the lateral exit of students to get into the world of work, and subsequent re-entry.

Self directed learning, particularly through the open learning system, provides ample opportunities for acquisition of both academic and vocational competencies as demanded by the system of continuing education.

(3) Vital Issues and Questions

(3.1) Mass Participation in Secondary Education

The Indian secondary education is presently characterised by an extremely low participation rate compared to other developed countries. Nearly 76% of the age cohort is outside the school system by the end of the elementary education stage. The annual increase in population is around 180 million.

Universalisation of elementary education is an area of topmost priority, and it may be expected that in the next 5 to 10 years the secondary participation would increase manifold. The upper limit of this would be an annual entry into secondary stage in the order of 180 million. While this may be too ambitious an expectation, even if the secondary participation increases to twice to three times the present number, the pressure on it would be tremendous and it would call for a drastic transformation of its content from being predominantly academic, at the moment, to predominantly vocational. With such an increased participation the new entrants would be coming from those segments of the society which have so far lagged behind in elementary education. To be specific, it would be the rural and tribal population and the deprived classes in general, and women in particular. Most of these groups would be the first generation learners and their immediate need would be to be offered economically gainful educational programmes. This, in turn, would demand a more expanded system of vocational education: both in terms of initial as well as adult and continuing programmes. Such clientele, being predominantly rural, would tend to get absorbed in the rural work force which is characterised by the existence of a large number of vocations. Such an expansion of secondary education and its reorientation, in terms of the type of vocations which have to cover the wider spectrum, is a significant factor to be kept in view while designing the future system of adult and continuing technical and vocational education.

(3.2) Trends in Employment

The organised sector employment accounts only for nearly 10% of the workforce; the rest being in self-employment and in the unorganised sector. Agriculture and agro-based vocations account for nearly 70% of the total workforce absorption. Of the organised sector, 4% happen to be in governmental employment, both central and state, and nearly 6% in other enterprises.

India has unemployment as one of the major challenges before planners. Around 70.9% of our population live in villages. The country has a predominantly agrarian economy. The educated unemployed youth are of the order of around 25 millions.

With more and more industrialisation, there will be demand for labour, mostly at lower levels. But big industries coming up these days, as the trend shows, will be mostly capital intensive and collaborative multinational types having much greater production/labour ratio, using automated machines. This will result in an insignificant absorption of labour at lower levels of skills and education into these industries. In effect, more unemployment will be caused by capturing the markets of local small scale and cottage industries and making most of them decimal in existence.

The unemployment will cause the availability of labour at cheaper rates. Hence, there will be a competition between man and machines, particularly in agro-based food processing industries and service sectors. Small units of agro-based rural industries may develop their potential to give gainful employment to an appreciable percentage of unemployed persons. If the cost of automation per unit of production in big industries exceeds the cost of production in labour intensive small-scale and cottage industries, it will help in them growing faster. In that case, big industries will either go for labour-intensive technologies or they will only enter into those sectors of production which are not available to small-scale industries. This would be a desirable direction of development where big and small industries will be growing in complementarity and would not compete with each other. The electronic industry may be cited as an example where integrated circuits, transistors, and other sophisticated elements, are manufactured in big industries, and assembly of electronic goods are done in cottage industries.

If economy of scale prevails in big industries with automated large industries predominating there would be unrest in the society due to large scale unemployment. This may create a pressure on governments to formulate policies in favour of rural industries. Hence, adult and continuing technical and vocational education would not only play a vital role in awareness-building among the masses, but would create pressure points for entrepreneurship development, especially among the rural masses. This would further mount pressure on the government to formulate policies in favour of rural industries.

If the above situation emerges as a dominant pattern, agro-based rural and other cottage and small industries would play a crucial role in solving the unemployment problem. They will be having their share in the market by employing most of the population, either by a desirable growth pattern of industries, or out of compulsion, due to unemployment pressure. Any large programme of technical and vocational education in the formal set-up, where participation rate is bound to increase substantially, would have to formulate its content and approaches, keeping this scenario in view. The system of technical education (as opposed to vocational education) in polytechnics and institutes of technology and engineering would have the primary role of training and retraining sophisticated technical manpower for larger and more automated industries.

The service sector will also be another major sector to employ an appreciable percentage of the workforce. This will require basic computer and electronics application skills in general, which are changing fast due to revolution in information technology. The contents of adult and continuing vocational education will have mostly basic computer and electronics application skills, besides entrepreneurial skills, knowledge of business economics, and technical content, for a wide variety of vocations in the service sectors, both rural and urban.

(3.3) People's Participation

As the awareness regarding entrepreneurship development and business economics develops, people's participation in rural industries will grow. In India, traditionally, masses were participating in the agricultural sectors and food processing cottage industries. A very high level of women participation was in these activities because families were the units of production. Because of illiteracy, lower status of work in society, lack of formal systematic training and advancement in technologies, traditional businesses and skills are vanishing. Here again, with the input of adult and vocational education, participation of women is going to increase manifold. In rural areas, women would take the lead in cottage food processing industries. In urban areas, participation of women in wage employment is already on the rise. The increased participation of women in rural vocations may initially bring down the wages. But the situation would stabilise gradually. The cost of labour is bound to increase. People's participation, particularly women's participation, is going to unfold many new business activities for which the adult vocational education curriculum would have to be geared up.

(4) Conclusions

In a country like India where there have been large informal training systems in existence for several centuries, which have become a tradition, where there exists a highly proliferated but unintegrated system of non-formal technical and vocational education through a wide variety of training systems, where programmes of technical and vocational education through the secondary schools, colleges and open learning are being increasingly accepted as the future direction, a future model cannot but be complex in design. It would also emerge out of what exists and cannot be transplanted from another country.

Such a system would have the following as the core characteristics which can be seen as the bare minimum in terms of structural features.

1. The educational system would have to provide a sound base at the compulsory educational level for later vocational learning.
2. The secondary stage would have to provide a major channel for vocational preparation for the young adults. This would have to provide both employment specific and generic preparations. The former would be necessitated by the existence of large numbers of vocations in rural sectors and many service-oriented vocations in urban settings, which would have a relatively slower pace of change and more adaptability vis-a-vis the slow pace. The latter would be necessary for all people in general, and those requiring greater trainability in view of faster pace of technological development demanding higher levels of cognitive and technological competencies in particular.
3. More technology intensive programmes requiring greater equipment on the part of the general education system would be better done by polytechnics and other specialised institutions and enterprises as the training systems.
4. The diversity and complexity (ref. point 1 above) would require a system for the recognition and accreditation of prior learning, both in terms of academic as well as vocational skills.
5. The open learning system would have to provide not only an independent channel for technical and vocational education, but also a system for providing remedial and bridge courses for upward career/professional mobility, for which adult and continuing technical and vocational education would play a major role.
6. The internal training system of enterprises would require content changes so as to provide a place for it in the overall system.
7. The entire system would have to show a greater sensitivity and responsiveness to changes in the employment market so as to be more market driven.
8. Adult and continuing technical and vocational education shall have to have its own equity focus through guidance and counselling, resource allocation and structural network to reach the target clientele, as well as other requisite dimensions.

4.2 The Contribution of Technical and Vocational Education to the Opening Up of Careers for Women

by **Helga Foster**

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(1) Vocational training in Germany

Contrary to many other European and non-European countries, vocational training and workforce preparation in Germany is by no means an individual affair. The federal government's concern, based on two legal acts, is drawn around the non- college bound population, roughly 60% of Germany's youth. For these youth, the transition from school to the labour market is clearly regulated by 320 training ordinances, including vocations of the service sector, of production, agrarian and home economics.

The German vocational training system includes the following features:

- it defines nationally recognised skill standards for each of the apprenticed occupations;
- a comprehensive system which includes all major industry areas;
- a system jointly supported and approved by businesses, unions, state and federal government. With some exceptions, most training programs have the duration of three years and are completed by a nation-wide accepted final test.
- and a system which combines classroom instruction with practical learning in the workplace.

Because of it's combination between the school and the in-firm, work-place learning, the German vocational training is called "dual system". While the in-firm training is under the auspices of the German Federal government, the vocational schools are under supervision of the single states. The training ordinances, the federal regulations which structure the content of the training, have to be approved by employers, unions, state and federal governments before they are administered. The process of revision and development of training ordinances is one of the unique features of the dual system. All changes in the dual system must be agreed upon by the social partners: employers and unions. Because of their legal character, the training ordinances are a framework of tasks and goals for each of the 320 vocations falling under the Vocational Training Act.

By law, each of these regulated vocations are open to every young person leaving school after the age of 16. Only a few vocations in the mining and construction sector are prohibited for women. Therefore, formally, there are no obstacles against the participation of women in the wide range of training possibilities in Germany.

(2) The difference between legal, social and economic reality

In Germany, as in most other European countries, women's participation in technical occupations is considerably low. Less than 10% of all female apprentices are apprentices in a technical vocational training program.

Reasons for this unsatisfactory situation are manifold. Mainly, women in Germany, as in most other countries, have sought their traditional role as wives and mothers. Only recently, mainly during the last two decades, there has been a change of opinion about women's expectancies in life. It seems like a strange turn of history that the change towards secondary and vocational education of women started at the time of high unemployment in Germany. In the early seventies, the affluent economy predicted a rising need of highly qualified workers. Both the compulsory school system as well as the traditional vocational training system underwent major reforms; some of them especially to the benefit of girls and women. As beneficiaries of those reforms, more women than ever before in the history of industrialised Germany continued in one or the other post- secondary systems by attending either university or vocational training within the dual system.

Besides structural and curricular reforms, and nation-wide legislation, generous federal scholarships assured the participation of everyone who was capable and willing to continue individual learning activities. However, because of the segregated labour market, women's opportunities remained limited.

(3) Adjustment strategies and changes in training and employment

Two different strategies with a specific impact on the openings of career for women are to be found today. The first is based on legislature; the other on special programmes financed either by state or the federal governments.

Today, direct sex discrimination with respect to entry, exchange and exit in employment appears to be largely eliminated. The criteria for equal chances in employment remains to be the "same qualification" between the applicants. As long as formal qualifications will keep playing a major role in recruitment and promotion, legal support of equality will have a limited effect on women's chances.

Several different state and federal programmes are, and were initiated, to provide technical training for women. The overall objective is to arrive at a higher than the existing proportion of approximately 10% of girls and women, of female participants in technical vocations.

Other programmes besides the ones to integrate women into technical, non-traditional occupations which are specifically designed for women, are programmes to promote entrepreneurship, and activities for lone mothers.

Training schemes to encourage girls and women to train for, and work in, non- traditional occupations are organised differently from those offered to men. Special arrangements to meet the needs of female trainees attempt to give women more self-assurance away from male domination. However successful most of these special programmes for women in non-traditional occupations are, without further encouragement of employers to hire these women, the overall success remains limited. Therefore, financial incentives are offered to employers in order to encourage them not only to hire trained women but also to join in training activities to facilitate the transition process at the enterprise level.

(4) Equal opportunity for women as a priority objective in all fields of education, training and employment

The fact that most activities to promote women are still at the pilot stage makes it difficult to assess their full potential. The most innovative activities are those which are taking greater account of women's specific capabilities rather than of their problems, because their problems mostly are the result of gender selection and sex discrimination.

Adjustment in the private sphere, and in the organisation of society as a whole, are just as necessary to achieve a harmonious balance between the world of work and family life. In other words, the reconciliation of work and family responsibilities for men and women alike is the major incentive for the realisation of full participation of women in training, employment and career development.

Some European countries have already chosen new integrated paths to promote women in all walks of life by taking greater account when implementing new measures, such as

- flexible learning and working times;
- parent leave for both men and women.

Parental leave should be accompanied by possibilities of further learning, assuring the parent on leave to keep up with technical and organisational changes at the workplace. These schemes have the merit of enabling women, and hopefully men as well, to leave the labour market for even a few years and later be reinstated, not only in their former job but, possibly, on an equivalent or even higher level than before their leave. These measures could avoid career breaks, mostly experienced by women now, after parental leave.

(5) Conclusions

As long as a linear working life is understood as the pursuit of a career, women will stay excluded from career development. The attainment of greater compatibility between working life and family life will offer the only chance for greater continuity in the course of women's careers. Besides the encouragement of greater work flexibility, of parental leave for both men and women, of affirmative action and other legislature to promote women, changes of learning and working conditions and in the situation at the workplace become necessary. Women's adaptation of the traditional male culture has not and will not take place. A feminisation of the working world as well as society as a whole will have to be implemented to achieve true equal opportunities for both women and men.

4.3 The Change and Impact of Culture on the Worker and on Work

by Henning Salling Olesen

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(1) Introduction

I shall focus on trade unions, but I see this question as only one aspect of the broader context of work related culture and education. I submit a paper reporting on an analysis of the Danish trade union movement (**Organisation legionnaires or life artists? The shop steward in past and future**), which is results from research in our department. I would like to draw your attention to the introduction and the paragraph 4: New challenges for the trade union movement. The point is not to concentrate on trade union theory or internal organisation of Danish Trade Unions. But the background - a highly unionised society, with something like 85% of all workers, men and women, in unions is unique for a few (north) European countries that are also characterised by a strong institutionalised labour movement and welfare state systems - often serving as an ideal situation in other countries. So the critical situation for the organisation and the ideas of the the Danish trade union and labour movement have some exemplaric value, and any solutions and emerging strategies are likewise interesting to determin, if this labour movement based hegemony was just an interregnum - like the communist systems in East Europe.

In a global context the nordic social welfare countries may be seen as a laboratory for democratisation in developed economies in general and for the democratisation of work. On the local level the political issue is about the survival and renewal of the welfare state and the trade unions.

As I see it the key aspects in answering this question are:

(2) The underlying culture of labour

The relation between work and education of every type

That is what I'm going to comment on in further detail in the oral presentation. However, in this paper at present I will address the underlying culture of labour.

(2.1) Wage labour as a (previous) station in societal development?

My local interest in a Danish/Nordic context is concerned with the development of a new workers' qualification for a post-Fordist era - for democratisation and self-management in work, and for work related to new needs and lifestyles. Related to this: how the trade unions handle the challenges to traditional values of work, working class solidarity, and the political strongholds in trade unions and the welfare state deriving from this development.

The idea is that the transition from Fordism to post-Fordism demands new types of qualification, but also invites workers to have new aspirations and possibilities in work. This accounts for work in industry as well as in service sectors. The great question is if this is going to be an advantage for one part of the labour force, where as another part will be marginalised/pauperised/unemployed - be it in the national framework, or in a global scene.

In this relation the question about the reforming of labour culture, new forms of solidarity and organisational links in society are crucial. This reforming is - it seems - already going on in so far as a dissolution of traditional working-class culture and traditional work ethos is concerned - young people demand "something more" before they devote half of their life to work.

In this sense, all experiments in self-managed work are interesting contributions - but their importance relies on a the learning process of the involved people, and of the cumulation and reflection of the experiences by systematic research. The practical implications are in education and training, as well as in social experiments and in socio-economic development.

Self-management, or a participatory democracy, represents a major challenge to the trade unions, and are mainly met by hostile attitudes or disengagement. I submit also a small paper on this question, **Trade Unions and Self-Management**, and I shall give some further examples.

(2.2) The role of general and vocational education in reforming trade unions

General and vocational education is a key factor in this reforming. The trade unions will have to channel new needs and demands, and especially if the response is new qualities of work, greater autonomy, participation on all levels - then there is an immense need for education. General education to give room for clarification and new experiences, a new political consciousness - and vocational education to make broader participation of workers in management and a reduction in the division of labour possible without unbearable losses in living standards.

So the list of challenges in the paper on the trade unions is also a list of issues that must be taken into account in vocational education.

(2.3) Must the third world establish wage labour based work cultures?

In a 3rd world development context the focus is on the implication from the (economic) modernisation on culture and learning, and the human factor pre-condition for social and economic development, which is mainly neglected or underestimated in development theory as well as in practical development projects.

The labour culture of western capitalist countries represent a source of experience and learning, in a political sense as well as in terms of general work socialization. But is it necessary, is it fruitful?

I think yes, but not unquestioned.

To put it more simply than I like to: The working class culture of the capitalist countries, and the basic work values of labour, may be regarded as a restricted type of modern culture, on the one side a highly civilised response to an enforced capitalist modernisation, centred in solidarity; on the other side the learning of its restrictions: that liberty/autonomy is not relevant or possible in work. So collectivism has this contradictory character. This contradiction is a pivot in the cultural side of modernizing processes - so my argument - in very different societal situations.

In the modernising process taking place in developing countries - especially the NIC - the leaning process of labour, establishing a labour culture and a trade union organisation, is a matter of elementary protection and a civilising force. You might argue that the recognition of trade unions represents a necessary element in the development of a civil society.

However: In the societies with well-established trade unions and labour traditions - especially the nordic countries - we also have the experience that they are strongly committed to the "industrial" era, to its ideas of liberation of man by material growth, and to its defensive self-restriction.

So, on the one side, this is often a restriction on the utopian democratic learning of labour, and, on the other side, it implies a threat of outdating on the trade unions. To establish the mediation between the "traditional" collectivist labour culture and new attitudes to work, to growth and environment, and to democratic rights/repsonsibilities, represents an overall political task.

(3) Women in the modernisation process

This may seem as a very uni-dimensional development line: First, you must by capitalist modernisation develop the industrial era labour culture, then you have to open it again. The gender isssue gives good examples that it is more complicated. In a way, the female work experience from home and social networks, and the fact that women obtain their civil rights by becoming wage labour, illustrate the very contadictory and complex character of the interaction between culture and work(er) - see the paper on page 47: **Qualifying Adult Women for Employment**.

One interesting thing is that the work experience of women, even in developed industrial countries, are different, and so also their relation to the labour culture and their individual concept of work - cutting across the (male) labour culture, and thereby also offering different resources in the collective learning process.

(4) Further observations

My interest in the theme is a research question as well as a political question.

(4.1) The research question

This deals with the subjective side of work: the role of work in the colletive social learning in the society, the relation between work and culture, and the development of human competencies as a collective learning process related to work. This is a core theme in our research in adult learning, and I would be very interested in hearing about similar research in other cultural settings.

(4.2) The political question

This deals with the utopian yet also urgent question, how the working people may be able to gain/improve control over the internationalised capitalist economy, and have it serve an environmentally sustainable production of socially useful products - seen not only as a question about power, but also a question of the ability and the devotion.

(5) Organisational legionnaires or life artists: the shop steward - past and future

This paper originates in a large-scale survey of the internal training system of the Danish Trade Union Movement (FIU) which we carried out between 1989 and 1993. A preliminary presentation of the results of this research are to be found in a report entitled **En oplevelse for livet,** (see note 1, page 46) sections of which are available in English translation. For us, the most important perspective has been to consider the training of shop stewards as part of the trade union movement's **process of renewal**. In the following, we present the background for the investigation: the historical development of shop steward functions, present-day qualification requirements which the individual shop steward should be able to deal with, and a profile of the challenges that the trade union movement is facing. For an account of how the training system actually functions, reference is made to other sources (Andersen et al 1993, Olesen 1992).

Although this investigation is based on conditions in Denmark, it may also be of more wide-ranging interest.

The article refers to the situation in Denmark and Scandinavia. As is probably well-known, the Danish labour market is highly organised with approximately 80% of all wage earners unionised and with collective bargaining in almost all areas of work. This is not merely the case in industry; it applies equally to public functions, private service, agriculture etc. Since large-scale unemployment (once more) began to develop from the beginning of the 70s, there has been a *further growth* in the formal labour market, not least because large groups of women are insured and unionised.

The labour market is basically founded on agreements between employers' and wage earners' organisations. Legislation in this area is sparse: it is framework legislation which is fleshed out by the organisations. (This applies, for instance, to the labour court and to regulation of the working environment.) The major basic agreement of the labour market and standards for regulation of conflicts were established as early as 1899.

Closely linked to the trade union movement is the (historically) strong Social Democratic Party which, apart from the decade between 1983 and 1993, has by and large, been the party of Government since 1929. In relation to the situation in Central Europe, it is a feature in Denmark that religious movements have never been of any organisational or institutional importance in the trade union movement.

(5.1) The development of the trade union movement as a learning process

The structure and activities of the trade union movement are the results of a collective process of learning (cf. Jorgensen and Ibsen 1979, Weber 1922). This took place by means of struggles for interests during the development of capitalism, and it cannot be measured by the yardstick either of abstract models of organisation and democratic ideals (as in the theory of organisational sociology), or by certain preconceived notions about the revolutionary abolition of capitalism and wage labour (as is the custom among certain sections of the revolutionary left). It should, to a high degree, be critically assessed on the basis of its own inner contradictions and its ability to develop democracy and self-determination.

A significant, critical tradition in trade union theory points to the contradiction between the functions of the trade union as "the force of law and order or the counter-force" (cf. e.g. Schmidt 1976). It is a precondition for controlling the sale of labour by insisting on collective bargaining that the unionised workers are able to present a united front. There neither was, nor is, any room for digressions and individual interests in an organisation fit for struggle and collective bargaining. In order to be a counter-force in basic economic relations one must be the force of law and order in one's own lines. The whole organisational form and internal democracy of the trade union movement is built up around the *ability to bargain collectively*, which also includes the ability to control the actions of individual members centrally. The organisational culture which stems from this is characterised by formalised structures, concerted action and the requirement of uniformity. Collectivism is the result of a mutual feeling of obligation vis-à-vis each others' needs and interests, but it is equally part of disciplining. This presents a democratic organisation with a genuine dilemma. Where (right of centre) organisation sociology and research concerning democracy understands this as an internal state of lack - the creation of an elite oligarchy - we understand it as a contradiction determined by the trade union's societal task. Although this explains the dilemma, it does not remove it. It rather defines it as an historically given cause of conflict which must be understood and further developed by the trade union movement itself. If this does not succeed, it will become a barrier to the development of the movement.

Trade unions are a *necessary* form of organisation in a capitalist society: if they are not present, wage labourers cannot reproduce themselves. If one has any doubts about this type of necessity, one merely has to look at the developing countries which are in a period of transition towards a capitalist social formation. "Reproducing oneself" is not an entity that is fixed for all time. It is a process of development or civilisation where the needs of wage labourers develop from mere physical survival to an increasingly more complex human development and ever greater freedom. For this reason, trade union organisation is a *cultural production process in itself*. Within this framework there is a collective learning process about society: forms of organisation for behaving within it are developed, as are self-awareness and hope for a better society.

These basic theoretical definitions of the trade union concept form a necessary frame for an historical and qualitative understanding of the context within which trade union education and training takes place. The development in (wage) labour, the development in the institutionalised labour market, and the collective learning process of wage labour where the future is formulated are the decisive framework conditions. It is also here that the criteria for relevant training must be found.

(5.2) The shop steward institution in the post-war period

The great changes in the relations between employers and employees after World War Two constitute an important background for the development of trade union movement training. This primarily occurs in the scope and content of trade union work/activity at the level of the workplace. Up to then this mainly consisted in:

- recruiting new members to the trade union and ensuring support for trade union demands at collective bargaining etc.
- checking whether the agreements were observed and, if necessary, going to the labour court.

The institution of shop steward was established in Denmark as long ago as 1900 in the iron industry. However, it is far more recent in other areas, in particular in small firms. Furthermore, it is a very young phenomenon in the public sector. In all areas, including industry, there has been great development of content and intensity in the co-operation between employers and staff.

The decisive characteristic of the institution of shop steward is a recognition, enshrined in the agreements, of the right of the workers to elect their shop steward, and the shop steward's obligation to work for co-operation with the company. In addition to this, there is protection against wrongful dismissal.

The 1947 agreement about establishing works councils was the start of a new epoch in co-operation at the work place. The employers pledged to brief the works councils about all important matters concerning the economy and the market. In the 1950s and 1960s, trade union representatives at all levels from the Parliament to the shop floor were actively engaged in the dynamic development of an industrial society. Naturally, the traditional tasks concerning rules and organisation were still present. But technical innovation, wages systems that promoted productivity, and training of industrial workers in bottle-neck areas in the metal industry and building and construction were carried out in a process of co-operation where shop stewards and trade union staff had tasks to perform that far exceeded these traditional assignments. They had to deal with more complicated and more "technical" questions, not least new wages systems.

Against this background, the development of the shop steward institution and the training of shop stewards became a matter of mutual interest for employers and trade unions. At the beginning of the 70s, this resulted in the creation of a fund, the "Education and Training Fund", into which a small, fixed sum of money is paid for every work hour. The fund is managed by the labour market parties together; 4/5 of the money paid out is spent on shop steward training and the remainder for the employers' organisation training. This fund has provided the economic support for systematising shop steward training and is regularly increased. At the moment approximately DKK 250 million (DEM 65 million) is paid out each year, and this probably covers about half of the total training activities in the organisations - to be compared with a membership of approximately 1.5 million in the Danish Federation of Trade Unions.

There has not been very much research in Denmark on co-operation and shop stewards. In the early

1960s, the National Institute of Social Research carried out an investigation of the shop steward institution in industry, first in 1961, and with a follow-up in 1966. This research revealed, inter alia, that the tasks performed by the shop stewards were rapidly increasing in number, and that the following types of tasks were of growing importance (Hornemann Møller 1969):

- wages systems that promote productivity
- questions of production technology (which included safety!)
- welfare
- personal counselling and assistance

It showed (not surprisingly) that most shop stewards had a modest educational background. 80% had only had seven years in the primary school. Some (40%) had participated in courses or study circles before being elected shop steward, but a great number had no educational experience whatever apart from their primary school experience, which was often negative.

In addition to this, an interesting aspect concerning the role of the shop steward became apparent: the workers thought that the shop steward was their representative and should achieve improvements in wages and working conditions. The more active the workers were, the greater were their demands for loyalty and orientation towards their own interests.

That is to say that they still saw the shop steward from the point of view of the workers' collective. The shop stewards themselves, on the other hand, saw themselves as easing co-operation, just like the employers and managers.

A closer study of the conception of the efficiency of the shop stewards (Hornemann Møller 1970), describes the expectations of the role of the shop stewards from different sides in two dimensions:

	Party oriented	
Trade union oriented	versus	Worker oriented
	Co-operation oriented	

The study shows that shop stewards, managers and top management are in greatest agreement concerning their expectations: they are to the right in the first dimension (towards the workers' side) and in the middle of the other. The expectations of the trade union people are a little more co-operation oriented and much more trade union oriented. The expectations of the workers are both more worker oriented and more party oriented.

However, the research also shows something about the same parties' assessment of the shop stewards' effectiveness: the assessment of the shop stewards and the management is often similar while the trade union and the workers often reach the opposite conclusion.

The trade union and the workers regard the shop steward as effective in cases where s/he has many tasks to perform, spends a lot of time on them, has a close relationship to the workers and where there is a strong workers' collective in the company.

The shop steward is often assessed as effective in companies with a high level of social integration (unity and affiliation to the company), and at companies where the shop stewards function for long periods. There does not necessarily seem to be any contradiction between a strong workers' collective and a structure of co-operation with management where there is also room for the shop steward.

Interpreting such investigations poses a number of methodological problems. But, in sum, the shop steward would seem to be placed as an integrated factor in the well-functioning company where the field of interest between management and workers is explicit and well-organised. In other companies there is a great risk that the shop steward will be assessed as less effective and placed in a conflict of loyalties in relation to his/her base and trade union.

On a number of points, the investigation indicates the development that trade union representation was undergoing and the dilemmas this gave rise to:

- new and varied tasks with corresponding technical requirements as to qualifications, making many demands on the shop steward concerning overview and integrity
- different role expectations and a tendency towards being split off from the workers' collective, in particular, at companies where unity between the workers is weak.

(5.3) New needs for systematic training education

At the same time, the expansion of the welfare state, the growth in consumption and the dissolution of traditional workers' milieus meant that the basic class cultural framework of orientation was undermined. This took place by means of vigorous geographical mobility, through moving out - especially from the capital city - and in the form of expansion of social and cultural life addressed to "citizens" in general, instead of to a socially and culturally delimited group. The development of the mass media must not be forgotten in this context.

The fixed base of legitimisation that lies in the concept of *shop steward*, which has its roots in the workers' collective at the workplace and in an entrenchment of workers outside of the workplace, became less a matter of course. The shop steward was now elected if s/he could produce results and make them visible.

Several different but connected needs for training followed from this development. The shop stewards should have technical skills and know-how in relation to the many new tasks and had to learn to deal with a complex work situation. But the development also created the need for trade-union-political schooling and communication in a more systematic form. This was schooling as regards views and political education among the elected representatives and in broader groups of members.

The existing forms of education and training had a hard time living up to these needs. In the wake of the general de-politicisation of cultural and leisure life, interest in political and trade-union topics in the evening schools was falling, relatively at any rate. Subjects having to do with political education and trade unions or society had become a dwindling part of the great supermarket offered by Arbejdernes Oplysnings Forbund -AOF- (the Workers' Educational Association in Denmark, see note 2, page 46). There were many who found that AOF had not done enough about strictly trade union schooling. Both AOF and other parts of the workers' movement tried to cover current needs, but often reactively and short-sightedly; for instance, courses in wages systems. There was no coherent course of education and training.

Dissatisfaction and frustration at training activities up to this, which may have overlooked the development tendencies that lay behind them, formed the background for the establishment of a new system of education and training for shop stewards (Olesen 1985).

In spite of the intention stated in a report from the trade union movement entitled *"Vor uddannelse" (Our education)* (1973) to extend the training offered by the trade union movement to a broad education for members, from the very beginning the Internal Training system was justified and defined as a training system for taking care of the functions of the trade union organisations.

This choice, on the one hand, prioritises a *target group* - the elected representatives or the officers employed.

The question is whether it also prioritises the *objective*, so that the need for technical qualification for trade union work is prioritised rather than the work of political and trade union education. These are problems which continue to haunt the further development of the system.

(5.4) The challenges of everyday qualification demands in shop steward work

The tasks of the shop steward

As described above, the tasks of the shop steward are steadily increasing in number. This development is due to three changes which, in principle, are different.

Because co-operation functions and management strategies on the company level have been extended, the shop steward has been drawn into the day-to-day organisation of worker and company management to a greater extent.

Changes in the system of collective bargaining and wages systems have shifted a lot of competence from the central wage negotiations to the local level. The development of the consciousness of interests to include new areas (such as the working environment, work injuries, technology, and education and training), has meant that the scope of the working area has grown rapidly.

Under all circumstances there are great differences between the task profiles at small and large companies, places of work with and without a workplace branch, the different areas of collective bargaining (normal wage/minimum wage) and the function in the private and the public sector. However, there are some basic features that can be identified as relatively broadly applicable to the tasks of the shop steward and they can be summarised as follows (see note 3, page 46):

- to monitor the observance of collective bargaining and other agreements and to deal with doubts and complaints directly with management or in the labour court;
- to negotiate and enter into local agreements on wages systems and determining pay in the area of minimum wages;
- to represent the interests of the staff in the works council and in all areas of interest where the staff are not ensured any formalised influence;
- to function as the link between management and staff, to communicate information, to regulate conflicts;
- to function as the link between management and trade union - both ways;
- to contribute to organising the staff at the place of work and to raising the level of trade union activity;

- to help colleagues/members with their personal, social and practical problems (counsellor, big brother/sister, social welfare worker);
- to take part in the workplace's/company's contact with the rest of the society (the local community, politicians, the public) - sometimes together with management.

Some quite specific requirements as to qualifications can be described in connection with each of these tasks. They are quite comprehensive in themselves.

These requirements must be met if the tasks of the shop steward are to be carried out, even though the individual points will vary in importance from the one workplace to the other.

However, it is *not* sufficient to fulfil these specific requirements. At the same time as one shoulders the specific tasks, irrespective of one's own personal qualifications and wishes, one takes over a set of roles and some potential for conflict which to a certain extent are pre-determined.

Potential for conflict in the shop steward function

Some of the potential for conflict - but only some - in the situation of the shop steward is inherent in the function itself. The shop steward's function has been characterised by *role contradictions*, cf. Hornemann Møller 1970. Different parties expect something different of the shop steward. These role contradictions are apparent, inter-alia, in the rules for shop stewards, as they must *help co-operation in the company while at the same time representing the interests of the workers*. Although these two aspects often coincide, this is not always the case. The shop steward must not only be able to deal with the strain involved in these role requirements; s/he must also be able to see when they **are** in conflict with each other and be able to have a clear profile in relation to all parties in everyday life.

We have described it as a categorical contradiction in the trade union that, on the one hand, it must *represent the economic and working interests of the workers under capitalism*, and, on the other hand, *their interest in abolishing wage labour*. Taking care of workers' interests at the company level is primarily an expression of the first of these aspects. The concept of *reproduction interests* characterises both the range and the limitations of these interests. On the one hand, it is a matter of *getting as much in wages as possible for the least possible effort*. But it is also a matter of *conserving one's labour*; that is, *safety, working environment and maintenance of qualifications*. Finally, it is also a matter of *quality of work*. Wage earners' reproduction interests cannot be taken care of without co-operation with management; but painful experience has shown that they often cannot be taken care of *by means of* this co-operation. Dismissals, work injuries and wearing down of the workforce all chip away at these reproduction interests.

However, this split is not caused by the shop steward regulations. It is caused by the capitalist economy of which management and workers are a part, even with the most worker-friendly management and even with the most interest-conscious shop steward.

This leads to the other aspect of trade union work - the struggle against wage labour. In the work of the shop steward, this aspect can be expressed in two ways: firstly, as a general politicisation of problems at the workplace - they are also all aspects of the political economy of society; and, secondly, as demands for co-determination. In everyday work and under the conditions given, the shop steward must at all times be able to formulate demands concerning *increased co-determination and to contribute to colleagues' consciousness of the limitations on shop stewards and their possibilities for action*.

This means that in his or her person and the way s/he does the job, the shop steward is obliged to bear all the basic contradictions of society and to contribute to helping colleagues to understand them.

In addition to this, the position of the shop steward in the organisation of the trade union is full of contradictions. He/she has *left the workers' collective of the workplace*. The workers' collective is an informal organisational reality consisting in the staff as a collective carrying out a function of work control and organisation side by side with the formal organisation of management, foreman etc. The workers' collective is a *counter-force* which primarily protects the staff from the random and divisive exercise of the right of management to lead by setting norms for work and service, etc. A shop steward cannot function without representing this collective (see note 4, page 46).

On some important points the basis of interest of the workers' collective is identical with that of management and owners because the competitive position of the company and its conditions of production form the framework for employment, the wages cake and working conditions. But it is precisely in this merging of interests that the interests of the workers' collective are in latent conflict with the common interest and solidarity of the trade union. In the first place there are often genuine conflicts of interest between the staff of a company and other workers (in the line of industry, among the unemployed, in other lines of industry). In the second place, making common cause against the individual capitalist in the competitive struggle, in political lobbying etc., means *cutting off* the aspect of the trade union function which is the struggle against wage labour as such.

In the workplace, the shop steward is first and foremost his or her colleagues' representative. But he/she is also the trade union's link to the company. In Germany, this contradiction is very clear because it is embodied in two different kinds of representative for the same employee. The "Betriebsrat" institution is the legal representation for the staff in the management of the company with somewhat wider powers than the Danish works council. "Vertrauens-Leute", shop stewards, are trade union representatives with no mandate to negotiate with management, while the members of the Betriebsrat do not have to be organised! The Danish shop steward institution unites these two aspects which means that shop stewards must be able to deal with the contradictions when carrying out their functions.

The institutionalisation of the labour market and its juridical regulation constitute the form in which the basic interests of the workers are taken care of. This forms the objective basis for an organisation which is *regulation oriented and top-down controlled.* At the same time the raison d'être of the organisation is that it is a *democratic mouthpiece for wage labourers and that they always basically feel that it is legitimate* (also when they, for instance, do not agree with specific decisions and strategies). The shop steward must stick to the rules, explain the rules to colleagues, convince them of the necessity of observing them while simultaneously loyally promoting colleagues' ideas and feelings of what is right and reasonable.

In addition to this is the fact that the wage-earner interests which the shop steward has to try to represent in this field of societal and organisational contradictions contain in themselves some genuine dilemmas. Some contradictions are inherent in the reproduction interest between *maximising immediate income and prioritising the working environment safety, the quality of the work, long-term qualification, etc.* Given the conditions of ownership and management that exist at present, in reality one can only disclaim responsibility for the company's economy and development, while simultaneously wishing to extend co-determination and to influence the qualitative conditions for the work (technology, product development, work organisation).

We have attempted to group some main points in the minefield where the shop steward has to function in a diagram of key words. The diagram can be regarded as a picture of the enormous demands for analysis, clarification as to opinion and political and human competence which the shop steward function makes of those who practice it.

Each layer in the model constitutes a field of contradictions to which the trade union and the shop steward have to relate. *The trade union movement must at one and the same time be able to fill roles and take care of interests which are in conflict with each other.* This in itself makes demands concerning the ability to orient and to deal with conflicts. *Between* the layers, the conflict and the roles are displaced: although there is a connection between prioritising and short-term wages interests, loyalty to the workers' collective and entrepreneurial interests, there is no parallelism. Likewise, there is a connection between prioritising long-term considerations for the quality of the work with loyalty to the trade union or class; however, it happens quite often that the shop steward experiences contradiction between the trade union and the quality of the work (for instance, discussions about working hours, wages systems etc.). This involves not merely being able to deal with the individual fields of conflict and being able to find one's way around in them; it also requires being able to explain and communicate these relations to others.

Struggle against Wage Labour **Force of Law**	Wage Earner Interests **Counter Force**
Entrepreneurial Interest	Reproduction Interest
Workers' Collective	Trade Union Common Wage Earner Interests
Wages, Labour, Legislation	Quality of the Work
Company Egotism	A Good Life

Requirements concerning the qualifications of the shop steward

On the basis of the description of the tasks of the shop steward and the potential for conflict inherent in the function, we shall outline the ideal requirements concerning the qualification of a shop steward.

They include the following:

- knowing the basic structure of the collective bargain and other agreements and being able to assess their importance in specific conditions;
- having knowledge of rules of procedure and principles of labour law, and being skilled at getting precise information concerning interpretations, precedent etc.;

- being clearly able to see interests, conflicts and coincidence of interests and using this knowledge in constructive negotiation;
- having clear opinions - which includes being able to formulate one's doubts - and being able to convince others of one's personal integrity;
- being able to read selectively, process information and communicate it in a clear and appetising manner;
- being able to understand and have sympathy for one's colleagues' experiences and wishes and being open to different persons and points of view;
- being able to formulate short and long-term interests and motivating one's colleagues to help to take care of them;
- being able to explain and personally accept the necessity of collective organisation;
- being able to organise meetings, debates, practical activities;
- being able to conduct a personal conversation, shift perspective and take on a leading role vis à vis colleagues who are looking for help for one thing or the other;
- being able to place specific events and current conditions in a broader social and historical context and communicating this context to others;
- being able to analyse the political content in specific single questions and converting this into strategic initiatives.

Taking on the job of shop steward means that some of the ordinary wage-earner problems are intensified: the relationship of work-family-public life is a collection of complementary and competing demands. But now the shop steward is to a greater extent in charge of or, at any rate, is responsible for, the form the relationship will take. The changes can contain deep-seated cultural and psychological conflicts: the shop steward is placed in a *life situation that is almost middle-class*. If one has a working-class identity and a working-class affiliation, this is then *strange and means a source of conflict in relation to colleagues and friends*. It also means that some built-in contradictions in this class culture, namely its intricate relationship to individual interests and needs, are made exclusively into one's own personal problem.

It is, in particular, the complexity and the potentials for conflict inherent in the total situation that are decisive.

It is obvious that any head-hunter bureau which was to find someone to fill this job would be looking for a *highly-qualified executive*. They would not accept anybody with less than medium-length further education or a university graduate. But the bureau would not stop at the formal and specific qualifications: they would examine this person's analytical ability, their human and social qualifications, openness, willingness to learn, ability to lead and inspire, to deal with pressure, etc. Some measure of experience from similar jobs would also be required.

There is yet another requirement: the shop steward should be and remain "one of us", and should also be "a whole person". This means being a quite ordinary person who is generally respected at the same time as being able to be personally responsible for all the points of view and roles which follow with the institutionalised safeguarding of interests. The shop steward should be able to deal with the "deputy" role which any staff representative position, to a greater or lesser extent, imposes on him/her, and be capable of making it into a fruitful, challenging part of relations with colleagues. Furthermore, the shop steward should also remain/be an all round active and interested person who takes part in joint activities whether they take place in associations or are grassroots initiatives or the like, and be active and interested in his/her children's conditions at kindergarten, school, etc.

It is, naturally, not possible to teach people this in a course that lasts a few weeks, not even if most of the participants have spent some years in the school of life. *It is impossible to cover the qualifications required by shop stewards to even a moderate extent.* For this reason we have focused on the following questions in our analysis of the internal training system in the Danish trade union movement.

- What aspects of shop steward qualification are prioritised and what are the paradigms for action that the participants receive in relation to the demands made by the job?
- How does the training system tackle what is in principle the impossibility of acquiring sufficient knowledge and competence in all these areas?
- How is the potential for conflict dealt with which is structurally present in the shop steward function and for which key words are given in the above diagram?
- How are the connections/contradictions between the shop steward function and the whole of the participants' lives dealt with; ie. the other aspects of their political lives, their cultural engagement

in political parties, associations etc. and their family lives and leisure time?

The answers to these questions can indicate the extent to which and the way in which the training courses contribute to enhancing the shop steward's possibilities for handling the job.

(6) New challenges for the trade union movement today and in the future

Even without a crystal ball, a number of new development tendencies that will radically change conditions for trade union activity can already be seen today. Some of them will restructure the tasks and conditions for work which have been listed here as being structurally associated with trade unions and the shop steward; others will make it possible - and necessary - to question the objectives and *raison d'être* of the trade union movement in a new way. It is not an easy task to list these changes point by point as they are all interconnected. They are development tendencies whose clout and form must be very openly assessed and, on a number of points, they are tendencies on which the trade union movement itself has a considerable amount of influence.

Another type of change has to do with changes in the basis of the *positions of power and organisational structures* of the trade union movement. The trade union movement has just finished unionising the public sector. It is now busy finding a way to update its formal basic structure to business structure and organisational matters within its traditional areas of collective bargains and looking after the interests of the employed. In the meantime, however, unemployment has reached a dimension and achieved such stability that competition for paid employment and relations between the employed and the unemployed have become a major problem for solidarity as far as looking after interests is concerned. New areas of employment with different working conditions and weaker organisational traditions have become far larger, both quantitatively and qualitatively (the service sector). *Solidarity and community of interests* can no longer be taken for granted. On the contrary, this development threatens to split the working population into fractions which regard themselves as being at opposite ends of the scale, as we already know in Denmark from the relationship between privately employed in industry and state employees.

In addition, technological and organisational development trends in the traditional bastion of trade unionism and industry are in the process of removing the basis of traditional trade union positions of strength and means of power. This can be seen in the German IG Metall, an industrial union in what is largely a world market economy. Mass work disappears, production becomes network-organised over regions and national borders. The strength of the trade union stands and falls with its ability to follow up this development with demands for participatory democracy, and for qualification of wage-earner consciousness in workers who no longer stand at a conveyor belt or in a factory hall, but who have qualified and individual work. This development has not bypassed Denmark either.

In this connection, the importance of central collective bargains is weakened. Although this development has progressed far in certain areas (decentralised collective bargaining), in others it is only in its infancy. The coming years will see the framework for important questions concerning wages and working time being formulated and answered on the company level. Moreover, a number of other areas of interest which can only be dealt with locally will become increasingly important: the environment, education and training, work organisation and technology. While the reorganisation of the formal structures of the trade union movement towards cartels or the like will provide the organisational framework for some of these workplace-related topics, it will not change the fact that they must be solved on the local level to an increasing extent.

Another type of change has to do with *new attitudes to work and trade unions*. This is often termed individualisation which, on the one hand means distancing from the collective and grouping in fixed patterns and, on the other hand, individual ambitions and expectations of one's life including the content of one's job. This is the manifestation of what is both the dissolution of traditional class cultures and closed circuits (not just workers' culture), and what in another connection has been called cultural liberation. The single individual has fewer fixed frames but far more opportunities. Without going into it deeply, the single individual also demands more of him/herself and her/his life (Baethge, 1992).

The active members of trade unions often find this development provocative. Some experience it as decline while others interpret it as pampering and egotism. As a cultural and psychological development tendency, it can, of course, become a little of each in a political, social and working sense. The old cultures are hardly completely dead and gone; it is much more likely that within the extended space, new values and possibilities of identification are being developed which can then also express themselves in a more varied social and cultural picture. To this must be added the fact that far more women have become wage earners in the formal economy instead of housewives with a job on the side, and that women's experience and the new working areas in the public service sector in particular greatly widen the horizons of working life and trade union organisation.

In the first place this means that work occupies a different place in the life of the individual. Traditional wage-earner consciousness is still there, professional pride and the like, but it is now an element in a new working identity. Women's caring responsibilities, professionalisation tendencies and salaried employees' identification with the job and the firm make their appearance. To a certain extent the companies are fishing in troubled waters with Japanisation strategies and company culture, or to put it more gently: they try to replace old-fashioned belief in authority with motivation, responsibility and a sense of belonging to the company.

What is dangerous in this connection in relation to the trade union movement is a risk of *problems of legitimacy*. The necessity of the trade union movement, the legitimacy of its basic principles, becomes less obvious. Certain aspects of its organisational culture and power base become directly repulsive.

However, *the problem of legitimacy* has another side also. The trade union movement must also be able to include new needs and problem areas in its work in order to retain its status as the organisation for wage earners' interests. We can identify four main challenges to the trade union movement here.

The first challenge has to do with the work situation itself. For the first few post-war decades of development, the interest structure was unchanged: it had mainly to do with better wages. Since then problems to do with the working environment and with pressures of work, and to a lesser extent other physical and mental factors, have been a natural part of taking care of interests. The fact that the discussion about "good work" or "work that develops" is now on the agenda is actually an expression of a significant re-structuring of the horizon of interests from modest, traditional wage-earner interest in the nature of the work itself. Wages and working time have not become irrelevant; employment and unemployment insurance even less so. But something new has been added.

The second challenge concerns social security and the welfare state. Primary looking after interests via the trade union was supplemented by a political policy of security in the form of building up the welfare state. Today the welfare state is in a critical situation which, although it may be a crisis of legitimisation, may also be a genuine crisis. Part of the security system of the welfare state would seem to have unintentioned side-effects at the same time as the primary intentions have been realised to a limited extent only. The price of security has been bureaucratisation and authoritarianism. There is hardly more than a small percentage of the population who would want to abolish this welfare state. Modernisation, which would give more self-regulated and well-adapted activity, requires restructuring which nobody knows the recipe for. The welfare state is an established expression of solidarity in the common political thinking of the trade union movement. For this reason, modernising the welfare state - in order to avoid throwing the baby out with the bath water - is a central process of re-organisation for the trade union movement. In addition to this, immediate wage-earner interests and experience in relation to the specific areas of activity of the welfare state are quite contradictory if one examines workers in export-oriented private lines of industry on the one hand and, on the other, public employees in the large service sectors with no direct commercial significance (eg. care for the elderly).

The third, great new challenge is the question of "sustainable development", or solutions to ecological problems. This also hits right at the heart of trade union thinking. Material growth is the formula for human progress and liberation. Even though political thematisation to a great extent is the question of distribution or equality, the question of the growth of the cake is still the pre-requisite for any discussion of distribution. On the local level, the utilisation of nature in the shape of consumption of resources or pollution is still an important pre-condition for production and employment. This means that it is a colossal challenge for the trade union movement to have to deal with environmental problems, energy policy, and qualitative control of growth. But in reality the question must be posed on the global level. It is primarily on the global level that ecological, economic and political questions are interwoven into the very grave issue of the possibility of sustainable development and the consequences of thinking in a way that shows solidarity.

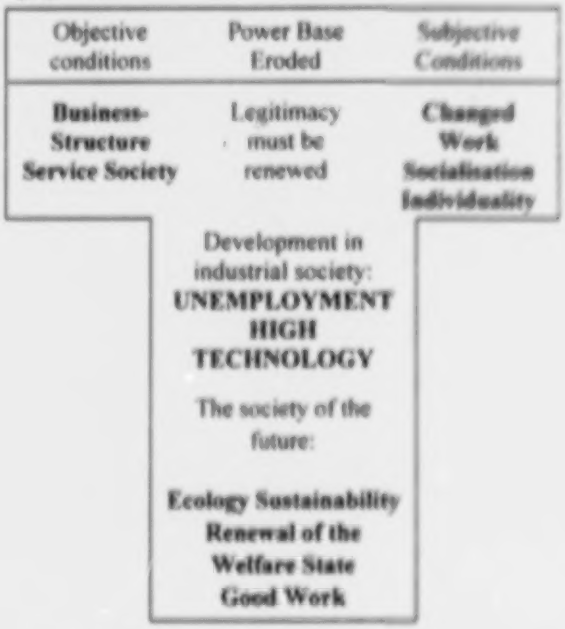
A fourth radical theme is changed gender roles and equality. The hidden ideal and precondition of the classic trade union objectives was to be able to support a family so that the wife could stay at home and create a worthy, secure family life. This was compatible with different kinds of supplementary work on the informal labour market. The post-war years have meant a massive change in this: women now work outside the home and have become real wage-earners. The demand for labour, the extension of the welfare state, and women's own demands for an independent social life and financial independence have made the housewife who stays at home the exception rather than the rule. The full effects of this development have by no means become apparent yet. Pay is only equal in a formal sense and we are far away from equality on the labour market. Most important, the gender division of labour in the home and in the caring functions has absolutely not changed at the same rate as the appearance of women on the formal labour market. The gender cultures and the attitudes to caring functions such as looking after children and the well-being of the family associated with an earlier epoch are still predominant, even though changes can be seen here, especially in the younger age groups. These matters concern trade union members both professionally and as processes of personal development.

Finally, let us mention relationships to strangers, whether they are "work migrants" or political refugees, or perhaps in the future, an indecipherable mixture. Up to now the trade union movement has guarded morally based openness vis à vis foreigners. This is much more difficult in countries with many foreigners and where social problems are more intractable. In these countries this question affects the trade unions more because it is its members who feel threatened. In an integrated Europe with a south and an east with a significantly lower level of productivity but a high level of expectations this problem will be much more difficult to tackle.

These challenges could perhaps be summarised in some points.

- Re-structuring workers' culture - individualisation
- Changed basis for the traditional positions of power and organisational structure of the trade union movement
- The 2/3 society, the struggle for wage labour, an extended concept of work
- The demand for the good life and work that develops, self-administration
- Environmental problems and a global perspective
- Equality and softening of gender roles
- The multi-ethnic society

The trade union movement must face both a *present* and a *future* - it must commit itself to both *objective* conditions and *subjective* expectations. Here it is the ability of the trade union movement to create a connection between its power base and its legitimacy which gives the movement its political mandate. If this connection is broken, then its role has been played out.


Objective conditions
Power Base Eroded
Subjective Conditions
Business-Structure Service Society
Legitimacy must be renewed
Changed Work Socialisation Individuality
Development in industrial society:
UNEMPLOYMENT HIGH TECHNOLOGY
The society of the future:
Ecology Sustainability Renewal of the Welfare State Good Work

(7) Education and training and learning processes

By the yardstick of international comparison, the internal training system of the Danish trade union movement is quite unique as regards scope, degree of institutionalisation, and independence. Naturally, this is not without reference to the well-developed and formalised co-operation between the parties on the labour market and the central level of organisation. In itself the development of this co-operation has increased the need for systematic qualification of shop stewards at many levels while simultaneously ensuring the necessary organisational and financial basis for it to take place. It may be said that this system of education and training is both a historically specific product of special Danish industrial relations and an important factor in their further development. When the form and content of the regulation of the labour market and taking care of interests undergo drastic change, the training of shop stewards is crucial to the trade union movement maintaining its positions of strength. At the same time, this is one of the places where the ability of the trade union movement to develop new objectives and give new meaning to the concept of solidarity is tested.

There is a built-in contradiction in the intentions of this system of education and training. Whereas it was in principle intended for all trade union members, in practice it was organised for shop stewards.

However, the investigation shows that almost all participants are active shop stewards and their participation is closely connected with their trade union careers. This means that the system is actually for officials rather than for the general trade union membership. On the other hand it is it not a systematic basic qualification for positions of trust in the trade union. Those who participate by no means follow the path indicated through the system.

The most certain result of this comprehensive education and training is that it cements loyalty to the organisation and creates an extremely intense feeling of community and of belonging. The participants are very satisfied with the programme; in particular, when are asked during the residential courses, they are often very enthusiastic. Most of them emphasise the informal social intercourse with other participants - is this where the most important learning and exchange of experiences take place? - and highly appreciate meeting participants from other unions and working areas. This special course culture clearly promotes consciousness of the unitary trade union movement at a relatively decentralised level, often crossing contradictory interests and tactical struggles between the leaders of the individual unions. On the other hand, this is a consensus-oriented culture to a very high degree. The training system is an extremely contradictory but dynamic factor in the trade union movement. It is these contradictions and this dynamism that we have illustrated in the course of our investigation.

This raises the question of the role of education and training in the trade union movement. Should it be a mechanism for organisational loyalty and for ensuring that all functions at the decentralised level are carried out competently and in accordance with centrally determined policy and strategy for solutions? Or should it rather be an independent structure which creates a public structure that includes the genuine experience and problems of the participants (and of other members), thematises conflicts, and is thus part of a policy producing layer in the organisation? Today, education and training are quite certainly important organisational integration factors. If they develop features of a public structure to a higher degree, on the one hand they will naturally challenge the existing organisational structure, its power pyramids and its formal comprehension of democracy. However, on the other hand, they will also contribute to developing the tasks of the trade union movement and creating inner strength by means of effective communication between members' experience and the organisations' formulation of policy.

Notes

1. Anders Siig Andersen, Finn M. Sommer, Henning Salling Olesen and Kirsten Weber, **En oplevelse for livet**, nr. 15 in the Publication series of the Adult Education Research Group of Roskilde University, Roskilde University 1993. Parts of this investigation have been translated into English as "An Experience for Life: an Evaluation of Internal Training in the Danish Trade Union Movement", Roskilde University 1993. The investigation forms the basis of three Ph.D. dissertations, which have the character of evaluation research with many complementary aspects (pedagogical, sociology of education, sociology of organisations). It is both critical feedback to the trade union movement and its teachers, and a case study in organisational education.

2. Arbejdernes Oplysnings Forbund (Workers' Educational Association in Denmark) was founded in 1924 as an institution for popular educational activity. AOF is the largest educational association in Denmark: in their free time, approximately 10% of the adult population attend classes, lectures etc. which are arranged by AOF, and several thousand participate in longer courses of education and training.

3. Compiled from Hornemann Møller, 1970, Jørgensen & Ibsen, 1979, and Colbjørnsen et al. 1981. As these three sources see the tasks from different sides, they pay attention to different aspects. Hornemann Møller concentrates on the communicative aspect of the shop steward's work and describes his/her tasks on this basis. Jørgensen & Ibsen take their point of departure in taking care of interests. Colbjørnsen et al. who are dealing with Norwegian conditions which are not necessarily exactly similar to conditions in Denmark, examine the tasks of the shop steward/workplace branch from the perspective of an organisational sociological description of the company.

4. The workers' collective is an industrial phenomenon which at one and the same time exists in contradiction to the formal organisation and fulfils some necessary technical-organisational functions in it (Lysgaard, S.: *Arbeiderkollektivet*, Oslo, 1961). The extent to which the concept covers other types of work places, eg. whether the building gang, which is a formalised part of the organisation and is part of the wages and agreement system, is also a workers' collective in this sense is a matter of dispute.

5. A more coherent presentation and reason for paying attention to precisely these points is to be found in Henning Salling Olesen's article entitled "Bevægelsen i fagbevægelsen - og hele livet!" [Motion in the trade union movement - and in the whole of life!] in *Social Kritik* nr. 8, 1990, which also contains a number of other contributions to this basic discussion. Cf. Oskar Negt: *Die Herausforderung der Gewerkschaften*, Campus 1989, and *Zukunft der Arbeit*, Documentation for IG Metall's conference on the future in 1988, and also Hoffmann, Jürgen et al. *Jenseits der Beschlußlage. Gewerkschaft als Zukunftswerkstatt*, Bund Verlag, Nördlingen 1990.

6. Cf. a large-scale investigation of the development of new environments in Germany. Cf. M. Vester & H. Geiling: *Die Spitze eines gesellschaftlichen Eisbergs. Sozialstrukturwandel und neue soziale Milieus*, in R. Roth et al. 1991. Cf. also Alheit/Vester, 1993.

(8) Qualifying adult women for employment

(8.1) A practical experience and some methodological remarks

Paper for the ESREA seminar **Adult Education and the Labour Market** in Ljubljana.

My presentation will deal with an evaluation research project, carried out on commission for the Danish Ministry of Labour, in connection with a labour market training program for women, the P47. P47 offered adult unskilled women a one year vocational training course, with a strong element of general education, vocational guidance and a good basic training in one industrial area. I shall first present this project in its own right as an exciting experience in adult education in a labour market context. After that I shall present some methodological experiences and reflections which resulted from our research project.

The evaluation research project, carried out by the Adult Education Research Group at Roskilde University, followed the first 22 experimental programmes during 1989-91. We collected four questionnaires from the participants over the process, including one 6 months after the education. We also asked the employers by questionnaires and interviews. We observed parts of the teaching, interviewed teachers and managers of the schools, and made 3 deeper interviews with selected participants.[1]

(8.2) The labour market education experience

This project was from the beginning an equal rights project following a number of guidance and training projects that had been specially designed for women in the immediately preceding years. Setting up a systematised experiment, aiming on large-scale implementation, was an integral part of labour market policy. So the programme synthesises some - in part, very diverse - sources of inspiration. One the one hand, the primary objective, following the logics of labour market policy, is to provide some unemployed women with a formalised competence that can function as a springboard for new vocational areas where employment prospects are good. It is usually assumed that the key factor in this is a specific training for that field. On the other hand, the experiment took up a great deal of pedagogical and organisational experience from guidance and training projects for women, where the aim is to strengthen the women's self-confidence and provide a favourable framework for personal development.

This double background influenced the design of the programme, it influenced the institutional setting of the practical experiment, and it also influenced the evaluation criteria, including the interpretation of the findings.

The programme is - opposite to most labour market initiatives - not just a series of courses. The teaching takes place as a continuous sequence. The participants form a permanent group, including a high degree of teacher continuity. The programme varies between theory and practical trainee periods, of which there are three. The programme may be described as a professional basic training programme for adults in areas where such basic programmes - or basic vocational education - do not exist. As a basic education it is relatively short, but it was the aim that the women should in some sub-areas reach the highest level of vocational training courses for semi-skilled workers in that area. In other words, it is not an introduction to the line of industry but a real qualification.

The general content of the programme includes mainly Danish and Mathematics but, also depending of the line of industry, in addition, foreign language, Physics, Chemistry and Data Processing.

Great importance is attached to the process of personal development and clarification: getting to know yourself as well as acquiring knowledge about training and job opportunities within the line of industry selected. The organisation of the teaching as a whole accords a central place to the needs and knowledge of the individual participant, and guidance is an integrated element in the teaching. There is a teacher continuity throughout the whole programme to facilitate continuous personal contact and guidance.

The basic teaching form is project work (in a very wide sense). It is assumed to be teaching that is well suited for including and making use of the participants' experience and personal qualification, and for a high level of technical qualification in a functional form. It also has the function of challenging traditional teaching patterns, ensuring that the teaching is really sensitive to the specific needs of the participants, thereby creating room for women in a male environment.

The first and basic condition, that has made these experiences interesting in a wider context, is the fact that the programme was successful on the very basic criterion of employment. The labour market situation in Denmark has for several years been an unemployment rate of over 10% plus some hidden

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[1] The evaluation has been reported in a number of publications, and the main findings are available in English in Summary of the report [illegible] the Evaluation of P47, published by the Danish Labour Market Authority, 1991. This is the summary of the main report [illegible] Adult Education Research Group Publications, Roskilde 1991.

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unemployment, and there is a tendency to longer unemployment periods for the individual, ie. the circulation is decreasing. This is partly the background for giving priority to education and training schemes in the labour market policy. But it also means that such re-integration projects face very hard conditions. Until now, the rates of some direct employment has been very low (which does not mean that such projects are not useful and necessary).

(8.3) The experience of the project

The P 47 programme broke this pattern. The women did get a job at a much higher frequency than in other labour market training and employment schemes. Some 2/3 got a job within the first six months after completion, 1/4 had a continuous employment in that period. That is to say, a good proportion have changed their position in the labour market markedly.

What is even more interesting in a way, is to test the quality of these jobs, and did they develop a kind of professional identity in relation to their qualification. We used several indicators, all subject to interpretation: did the individual woman think that her new job was more qualified and/or more responsible than the jobs she had earlier? Did she feel committed to that new work field? Was there a direct connection between the skills acquired in the education programme and the job? Or an indirect, estimated by the woman and/or the employer? It seems that a good proportion of the women get jobs that are better than "just a job" - and in this segment of the labour market this is an important achievement.

Since the education programme is set up on the background of unemployment, this basic success is, of course, essential. Why has this programme been more successful than others?

Only a very simplistic measurement of effectiveness would try to make a single explanation of these figures. A complex of factors work together against each other.

First, there are the externals. The general level of unemployment is of course the most important, but in addition it turned out that numerous local factors from turbulence in a segment of the world market over plant closures or expansions to specific attitudes to female workers in single enterprises, had a significant influence on the employment rate and even the quality of the trainee periods.

Secondly, such a project has a self-selection. The deliberate selection of applicants allowed women in an objectively difficult situation (unemployed, unskilled, poor formal school background) but what had a good motivation for education. On this background, there was even a lot of accidental variation due to local circumstances. But, on the top of that, there is, of course, an invisible self-selection of women who dare invest in a one year education programme that is not narrowly vocational, etc.

Thirdly, we are also able to see from our observations and interviews that the pedagogical structure - the project work, the openness to participants' experiences and the combination of vocational and general elements - have been very fruitful: on a very simple level, the activity level was very high, the participants were enthusiastic most of the time. The social climate has been very good, and most of the women have felt well experimenting with learning - which is a quite odd situation for many of them - and working with techniques and materials that are often regarded to be male.

But, finally, a lot of contextual factors influenced very directly the institutional setting and the learning processes. Beside the experimental character of the project, which is always important, the background in the women's movement, and the legitimacy of that has - no doubt - a special importance. But is also illustrates the complexity in the analysis of relations between pedagogical means, learning processes, and the labour market consequences.

Paradoxically, there are very different opinions about the purely female group. Some regard this to be a main reason for the good, secure learning environment - but some also think that male participants in a mixed group might have added some ways of working, etc. - and some even claim that it has been an unpleasant and stressing environment because of the tough and marginalising social style of (some) women. I shall not go very deep in it - each of these views have some reality, but very much connected to individual personality and relations to the situation and to the rest of the group. We feel confident to say that the female environment has facilitated some of the basic developments of security and self confidence, and a wide framework for sharing experiences. One may assume that this has in turn provided a good background for the technical and social learning processes through the whole education, and especially for the women's approach to the workplaces in their trainee periods affecting their general social function and personal attitude.

The interesting thing, however, independent of which explanatory power you assign to each of these factors, the total outcome does support that it is possible - under certain circumstances and with appropriate means - to break some of the mechanisms of the labour market segregation. So the question is: is it possible to find out what are the key factors?

When we asked the employers, the most striking was how much they emphasised general qualifications, social competencies and personal characteristics. The technical skills are basic and necessary, but when the employers evaluated the education as a whole, as well as when they gave reasons for appreciating an individual employee, they turned to these types of reasons. Now, this is a highly interpretable type of data. To some extent, they might rather be a mapping of employer ideologies than of the exact employment criteria. However, it suggests that there is a much closer connection and intertwining between the factors that facilitates the women's success on the labour market, and the factors that makes the education a valuable and engaging experience for the women themselves.

(8.4) The subjective learning story

This leads into the focusing on the subjective level of the learning process, and the subjective level of the women's labour market situation. I shall comment in detail on the method later. But we utilised our deep interviews to go one step further into interpreting this subjective aspect.[7]

We assume that the life history and the individual interpretation of it is an important background for the learning process and labour market career, and offers a contribution to the evaluation. The theoretical framework for the analysis of the interviews is mainly socialisation theory and especially gender socialisation.

The latest report presents a close analysis of three cases, representing three individual life histories, their work biography, their immediate background for participating, their views on training and education, and their future life and career perspective.

To give an idea about the analysis and its fertility would more or less demand one case plus all the reservations. But nevertheless...

One woman who is, during her transport education, not only improving self-confidence, but also changing her ideas about possible work drastically, is also telling a lot about her relations to her husband and to her mother, giving enough material for some interpretation. Her mother, with whom she had been very closely connected also in adult age, died from cancer only a short time before she started. Her relation to other women and to her husband during the education is a kind of adolescent development - she gradually gets able to face her husband as an equal partner, and the education and work competence goes into that process, and she also gradually learns the possibility of woman-to-woman communication outside her daughter relation to the mother. This is not only a "private" development, it is intertwined with the development of her work identity and of her concepts of work. During the education she has two very different trainee experiences. One being a trucker - that really is "something" to impress her husband and her little son: a new social identity. The other is a very calm and family-like work group in a store. We interpret her reactions to these trainee experiences in relation to her previous work experiences. She has a happy experience of being a maid in a private home - where she felt appreciated and integrated. However, this is not really conceived to be work - after that she has had one of the trivial women labour market careers, with unskilled jobs in industry, part time cleaning a school while her child was small, etc. The trucker experience corresponds to her concept of real labour, and also to her newly emerging self-confidence. The store experience calls for her family and relational experiences - this is obvious - but we also think that it contributes to a concept of work that includes such experiences as those of the maid period into a new consciousness of how work environments may be - that is to say, a reconciliation of some of the relational experiences and needs with the emancipation process of becoming educated - she ends up heading for the store, and is employed in it. It is not possible on this level to discuss the individual psychodynamic process very closely - the relations between regressive and progressive elements in the story - but if the learning history of the individual may be understood and interpreted in the context of that context of individual socialisation and life history, it adds new dimensions to the possible meanings of the present actions, plans and learning process.

The point is not to be able to know the exact truth about this individual woman, but to provide a new context of understanding learning processes. I hope the very short example gives an idea about the direction of that intention.

We draw some points of practical importance from the analysis. In relation to pedagogical methods and teaching, the life history perspective and the cases analysed is seen as a way of improving the teachers' understanding of the subjective processes involved in the participation in such a training programme. It supports the pedagogical concept of the project, with project work teaching, leaving plenty of space for experience based work, individual clarification, etc. In relation to the planning and administration level, a number of experiences are pointed out, among these the importance of quality of guidance before and after the training, and the importance of gender composition of classes in the training programme. These experiences are in most cases valid not only in

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[7] The latest report [illegible]

ventional teaching, but also to a range of vocational training and adult education programmes.

(8.5) The methodological experience

From the beginning of the project, we had the assumption that it would be fruitful to study the project from the participants' perspective. The theoretical assumption is that learning is a life long story, and that even the single elements in a learning environment (acquiring this or that skill, meeting a specific work experience, etc.) has its subjective dynamic meaning in a context set by the individual life history. It must be emphasized that this is a societal understanding of learning - life history is the mediator of societal and cultural structural factors, it is the "place", in which the social context of the learning is present in the form relevant to learning.

So, to put it short, we looked for the educational truth in the life history of the participants rather than in the classroom. We did observe the classroom, and we assumed that also the experiences in the classroom - seen as a learning environment - get their significance for the learning via their subjective meaning to the participants.

This was the background for the design of the project. It was a comprehensive design, with several types of data collection. This design did, however, prove unsatisfying. Although we had given a priority to qualitative interviews with a life history perspective, there were certain limitations on time and finance that led us to carry out these interviews during the education in school. We also had a mixed agenda for these interviews, including information about the concrete education and getting the interviewees view and evaluation of different factors in the situation. These may be some of the factors that caused these interviews to be only partly covering the purpose of a life history and background interpretation.

Another factor is, of course, that we had two unclear notions about the ways in which the life history context might be important, and how the interpretation should be performed.

However, I think there are some essential perspectives for the research in adult education in this. Most adult education research and thinking is closely related to the perspective of improving teaching and/or institutional and organizational settings. Although very respectful in relation to the autonomy and the needs of the adult learner, it means an objectification of the learner and a narrow framing of the field of concern, or at least a bias to understand learning in a teachers or system perspective. This, of course, especially accounts for such research as we have been carrying out: evaluating a specific experiment, the teaching methods, the way of handling labour market problems, etc. However, this is not an unusual context for research into adult education in a labour market context. So I think that some of experiences may be of a more general relevance.[7] On the other hand, a comprehensive research design, like the one in evaluation research or in (educational) development projects, also has advantages. It may provide for the research team a lot of contextual knowledge (the education, the labour market setting, the cultural context) and give a very practical judgement that may be very useful in the data collection as well as in the analysis.

These experiences and reflections have led us into a further development of a research strategy, focusing on the individual learning biography. We preliminarily label it a Life History Study. The plan is to refine the study into the individual subjective history with a special focus on **gender and work**. *These two aspects are in no way parallel, but very important for different reasons.*

We think that gender is may be the most important single aspect of the socialisation background when seen from the point of view of the adult learning biography. The gender aspect was in the project originally in a quite unproblematic notion about a female free space, where you could practice and strengthen self confidence and female self consciousness. As I just mentioned, it seemed to be true, but also a lot more complicated. But it seemed to be very fruitful to interpret the basic learning processes in terms of gender and gender socialisation.

Work experience and work identity seems to be a very important, and, for us, especially interesting, side of the adult learning. It goes without further discussion, especially, of course, in relation to labour market related adult education.

(8.6) Some inspirations for method development

We have, I think, learned a hard lesson as to the data collection, which presents some difficulties in practical terms in many projects. We have during the period of the FIU project and a couple of parallel projects, and partially as a response to our search for a better design, been inspired from quite different and maybe also incompatible methodological traditions of biographical research as well as psychoanalytic hermeneutics.

The biographical research seems to be a rather direct and comprehensive answer to the problem of defining and helping to collect a relevant set of data in a qualitative research design. Although it is a research tradition with several quite different positions, then some focusing the biography as a subjective whole as the object for analysis. Especially the narrative interview - a spontaneous telling of the life story of the interviewee - seems promising as a method for data collection, providing a context for the interview that goes beyond the education situation, and establishing a different discourse than that of commenting on the education.

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[7] [illegible]

At least two aspects of the methodology must be considered: the data collection and the analysis. In the analysis, we mean to stick to the psychoanalytic/socialisation theoretical inspiration, that is inherited more or less from a "Frankfurt" tradition. It may be questioned whether incompatibilities between the research traditions will make such a combination of an interview procedure that emphasises the production of biographical continuity, and a theoretical framework that tends to dissolve this entity in subjective conflict structures as well as objective discontinuities and structural dependence. To me it seems rather opposite: that this contradiction around the concept of biography is a key to the dynamics of the learning biography.

But we have also started studying some of the data collection methods used in this tradition, namely, different types of group discussion, more or less thematic, more or less context related. This data collection method utilises the interactive dynamics to provide qualitative data. A depth hermeneutic interpretation of these discussions utilises a psychoanalytic knowledge in the interpretation of the participants in this interaction as well as in the self-reflection of the interpreter and the interpretation procedure. It may thus relate to situational as well as life history contexts, depending on the theme and the interpretation.

These last ideas are, so to say, reflections on how to develop a life history oriented study method into adult education, work, and gender. We are building that into some projects being planned now, at the same time as we work with the methodological questions. And we are, of course, for ever looking for a sponsor that will allow us to give priority to the scientific perspectives - including systematic knowledge about adult learning, and theoretical as well as methodological development.

6.6 The Changing Provision and Participation Patterns in Adult and Continuing Technical and Vocational Education

by Ndeh Ntumambong Ningo

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(1) Introduction [illegible]
(2) Pre-independence Period [illegible]
(3) Post-independence Period [illegible]
(4) New Policy Orientation towards Technical and Vocational Education [illegible]
(5) Continuing Technical and Vocational Education [illegible]
(6) Towards a Future Policy on CTVE [illegible]
(7) Conclusion [illegible]

(1) Introduction

This paper examines the changing provision and participation patterns in adult and continuing technical and vocation education (ACTVE) with specific reference to a non-industrialised country, Cameroon. To that end, it traces the historical development of the educational system in general and of technical and vocational education in particular, and concludes from this overview that adult and continuing technical and vocational education has faced many difficulties in Cameroon. Structurally, the paper can be divided into three major parts. Part I examines the pre-independence or colonial policies on education. In Part II the post-independence educational policies in Cameroon are considered. Finally, Part III is concerned with future perspectives and orientations and suggests some elements of a strategic policy on adult and continuing technical and vocational education.

(2) Pre-independence period

The evolution of the educational system in Cameroon, as in most post-colonial societies in Africa, is closely tied to the desire to consolidate, master, and extend the administrative processes inherited from the colonial powers at independence. Prior to independence, two factors guided the orientation of the educational system at all levels in many colonies. The first factor was obviously the needs of the colonial administration. In its conception, education for the colonised was:

> *"... intended to produce clerks, interpreters, chiefs and other agents of colonial administration. The colonial administration supervised and eventually began to subsidise Christian missions to produce more clerks and interpreters needed by the commercial firms or for the [illegible] of staff in the administration*

and technical services that were too expensive to import from Europe.[1]

The education was, by design, general in nature. Yet its introduction caused social disequilibrium in the traditional set-up by introducing a new social hierarchy in which the colonialist was at the top and the colonised occupied the lower ranks. Clearly, the education of a colonial subject rarely, if ever, equipped him to accede to this first level. But it was this new social order that was responsible for the second factor in the orientation of the educational system in the colonies.

The products of this system played intermediary roles between the colonial administration and the local population. They ensured that the instructions and desires of the metropolis were faithfully transmitted to the subjects and reversely assured the former that all instructions had been faithfully executed. Because of their roles as intermediaries, the graduates of this general education occupied the second rank in the new hierarchy, thereby acquiring a sense of self-importance not previously available in the traditional set-up. General education was thus seen as the only educational path that could result in this important position immediately below the colonial masters. The symbol of this new status was an office in which one fulfilled one's functions, which involved issuing and forwarding orders, and from which one was in direct contact with the whites.

Concomitant with this policy orientation and the aspiration of the new indigenous elites was the deliberate policy of discouraging training in vocational and technical disciplines. One reason for this was the fear of the development of an indigenous skilled labour force that could eventually compete against colonial professionals and introduce goods and services into the local market against those from the metropolis. Paradoxically, it appears that the colonialists were actively aided in this attitude by African elites, who, having received a general education and jealous of their new status, opposed the introduction of technical and vocational subjects into the curriculum using as justification, the claim that inclusion of these subjects in the curriculum detracted from the general quality of the educational system.

"Whenever colonial officials attempted to promote vocational education, agriculture training and teaching in African languages, the Africans protested."[2]

In contrast to general education, which was perceived as a sure route to an important post in an office in a city, and was eagerly sought after by the ablest students, technical education was reserved for the rejects of general education. Its poorly educated graduates were condemned to manual labour in plantations, or in other domains.

It was therefore logical that, within this policy orientation and the attitude of the new African bureaucrat emanating from the schools of general education, a limited university education be introduced. Consistent with the needs of the colonial administration, it

"... emphasized the fine and liberal arts, the classics, the sciences, and public administration, but they did not later provide facilities for training Africans in entrepreneurial skills."[3]

(3) Post-independence Period

It was within this background of exaltation of general education and the accompanying disparagement of technical and vocational education that independence was attained. With the educational system under the control of the newly independent states, this policy was nonetheless continued and intensified for almost two decades. Several factors contributed to this attitude.

First, those who took over the management of the affairs of the new states were precisely those who had occupied the second ranks in the new hierarchy, due their general education which had prepared them for administrative posts. As a matter of pride, they felt it was necessary to consolidate, master and control the administrative processes and had the power to do so. Now, occupying that highest social stratum previously reserved for whites, they served as models, thereby reinforcing the impression that the way to social elevation was through general education. Simultaneously, the perception of technical and vocational training as the option for failures was strengthened. Thus it was that in the two decades after independence enrolment in technical and vocational education was barely one third of that of general education.[4]

Secondly, technical and vocational education was generally organised by the private sector, which, as a result of past and prevailing policies, could not provide training of the highest quality. The failure rates were consequently high, not because of poor teaching by unqualified instructors, but more importantly, because of the mediocre quality of the students who were ultimately oriented towards this path. These high failure rates in an area of education already considered unimportant and of low quality, further served to discredit technical and vocational education. It was a bitter irony that, in attempting to implant itself and be accepted, technical and vocational education inadvertently contributed to its own belittlement.

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[1] [illegible]

[2] [illegible]

[3] [illegible]

[4] [illegible]

Finally, the attitude of the state was manifested in its policy of training teachers for its schools. In consonance with its orientation towards general education, the first teachers' college was established for general education. It was to be almost 15 years later that an annex to this institution was opened for the training of technical education teachers and 20 years after that a full fledged technical teachers' college was founded. But, while the former was quickly provided with the infrastructure necessary for its assigned functions, the latter till today occupies temporary structures, after migrating from one location to another attached to high schools.

(4) New Policy Orientation towards Technical and Vocational Education

In the past decade, in particular, several events, some resulting from past policies, coalesced and militated in favour of technical and vocational education. First, the hold on the administrative process had been generally consolidated. Secondly, there were vast numbers of graduates of general education who were unemployed. Further, large numbers of university graduates, who possessed degrees in literary fields because of their backgrounds in general secondary education, could not find employment. These situations represented a social time-bomb. Thirdly, the need to develop an industrial base was sensed with greater acuity; industrial development would help in reducing the levels of unemployment. Fourthly, the private sector was complaining, not only about the lack of suitably trained graduates from the educational system eligible for employment, but also about the limited range of technical and vocational disciplines. There was a poor correlation between training and the job market. Finally, a protracted economic crisis accentuated the problems of unemployment, thereby creating a need for training, not only for self-employment but also for creating jobs. The new policy orientation was to provide training that would lead to gainful economic activity irrespective of the level of education.

Notwithstanding this belated recognition of the importance of technical and vocational education, its subsequent introduction into the curriculum was still heavily influenced by this policy that emphasised general education. To illustrate: of the secondary school population in 1975/76, general secondary education had 81.4 % of the student body as against 17.1 % for technical education. For the 1990/91 year, the respective percentages were 80.4% and 17.6%.[1] Clearly, the financial commitment was proportionately heavily weighted towards general secondary education. As a consequence, technical and vocational education lacked the proper orientation and commitment towards professionalisation and entrepreneurship. Rather, the products of the curriculum were largely employed by the state, many in administrative posts for which they were clearly unqualified. Whether intended or not, technical and vocational education was ultimately viewed as an extension of training in administration. This attitude, which has lasted to today, has had deleterious effects on the subsequent evolution of technical and vocational education.

To illustrate further with the specific case of Cameroon, the recent national forum on pre-university education, in discussing post-colonial technical and vocational education, identified the following perennial short-comings as responsible for the ills of the system:[2]

- delays in implanting proposed technical high schools;
- insufficiency evident in the qualifications of teachers, especially in the area of industrial technical education;
- inadequate teaching props, insufficient specialised halls, workshops, laboratories and libraries.

It concluded that the

> *"...curricula paid little or no attention to practicals and were seldom oriented towards the productive sector of our economy."*[3]

For example, it is estimated that 80% of the students in technical schools were trained without appropriate equipment,[4] a pedagogic approach more suitable to general education. In addition, the training was limited to automobile mechanics and building trades. Clearly, under these circumstances, the correlation between paper qualification and competence is very weak.

In response to the perceived deficiency in the system, it recommended professionalisation of technical and vocational education, which consists of establishing a relevant link between training and employment; consideration of the socio-economic environment during training; career counselling; and the development of a partnership between the educational system and the socio-professional world.[1]

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[1] Rapport sur le développement au Cameroun - 1991. PNUD. Yaounde

[2] National Forum on Education. Working Document. Ministry of National Education June 22-29 1995, p 17

[3] Ibid., p 9

[4] Rapport sur le developpement au Cameroun - 1991. PNUD. Yaounde

Implicit in the short-comings enumerated above is the fact that development of technical and vocational education followed a policy that was enunciated for general education: namely, the opening of numerous institutions in response to rapid population growth and political expediency without due consideration given to the special needs of technical and vocational establishments.

University education did not escape this orientation towards the production of civil servants. As the need for more qualified administrative personnel developed, the first institutions of higher learning set up were devoted to public administration. The need for technical education, when it was felt, was peripheral.

> *"Surely, a few elements received technical higher education; but this training had the same importance as general education, for the engineer who graduated from it worked just like the administrator in an office in a city."*[2]

In the new orientation, informal education was generally under the control of appropriate ministries. In the ministries of health, agriculture, and social and women affairs, there was a heavy concentration on the training of women. This vocational training continued to receive special attention until 1987 when the effects of the economic crisis resulted in a halt on further employment in the public sector. From then, most of the training centres affiliated to ministries have either closed down or barely continue to function. In general, lacking job experience, graduates face the same unemployment problems as those of higher education. In the private sector, training is conducted on an in-service basis, confirming the observation that training in the formal sector is inappropriate for the business sector.

(5) Continuing Technical and Vocational Education (CTVE)

The processes described above were to have an impact on the development of continuing technical and vocational education (CTVE), since they were primarily concerned with initial training. In fact, it can be said that no systematic policy has ever existed for this aspect of technical and vocational education, even within the dispositions of the reforms or projected reforms of the educational system. For example, the recommendations of the recent National Forum on Education, while making reference to mass education, do not speak more directly of it.[3] This failure belies any intentions for mass education, given that continuing education in general, and continuing technical and vocational education in particular, can play a major role in mass education. This silence is curious because the forum was convened to make recommendations to completely overhaul pre-university education. With its insistence on improving technical and vocational education, which is described as necessary for national development, it would have been thought that adult and continuing technical and vocational education would form one of the cornerstones of the reforms.

Concerning university education, a recent exhaustive study of the higher educational system in Cameroon pointed out that

> *"The current structure of learning in the University is hierarchical, with a degree at the top and individual courses providing the elemental building blocks. These blocks, however, may only be put together to build a degree programme in a determined time course. The individual years of study are not ends in themselves as no determinable marketable skills are acquired, particularly in the faculties. The individual years of study are but a means to a degree. Inherent in this is the tacit admission that a degree programme is the only way in which the University can provide useful and meaningful instruction. There is at the moment no need to look towards the University to acquire a specific skill, or group of skills which do not constitute an entire degree programme. The University is thus totally incapacitated with regard to providing job skills to non-degree students, and continuing education to graduates and non graduates."*[4]

Thus, even in the university setting, adult continuing education did not constitute part of its activities. This tradition has been maintained in the recent reforms of the university system in 1993.[5] Several conclusions can be drawn from the nature of the university. First, except in a few disciplines, the university did not provide professional skills to its graduates. Secondly, this state of the university was a direct result of the initial function assigned to it at its creation: the training of administrative personnel for the state. Thirdly, even in those cases in which the university trained professionals, such as in medicine and engineering, it did not provide a means - continuing education - for the continuous updating of knowledge and skills. As such, shortly after graduation from the institution, the skills of its alumnae were obsolete.

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[1] National Forum on Education. Working Document. Ministry of National Education June 22-29 1995, p 14

[2] Bekolo Ebe, B., op. cit.

[3] National Forum on Education. Working Document. Ministry of National Education June 22-29 1995

[4] Ngu, J.L. and Kwankam, S.Y., At What Price Higher Education in Africa? A Case Study of Higher Education in Cameroon. IDRC, Sept. 1992, p 9

[5] La reforme universitaire au Cameroun. Min. of Higher Education. Yaounde. 1993

In recommending reforms, this study enumerated a set of innovations which are essentially adult and continuing technical and vocational education for non- traditional university students.[1] These innovations were

- shorter courses than the traditional university programmes;
- courses will be determined by the market needs;
- the main emphasis will be in the acquisition of skills;
- there will be significant inputs by specialists in the private sector in these training courses;
- flexibility of the programme to allow students to move on to acquire higher degrees, or change to other fields of learning

Notwithstanding the policy orientation described above, technical and vocational education has existed for a long time in the informal sector and in the formal sector in the past few years. In the informal sector, this training has occurred in disciplines such as carpentry, bricklaying, automobile mechanics, shoe mending, which required little literate skills. It has been based more on apprenticeship in which students are expected to spend several years - depending on the craft - under the guidance of a master. Such training generally did not include the development of skills in reading, writing, and arithmetic. No recognised diploma or certificate is issued to the apprentice at the end of the course.

In the formal sector, confronted by the lack of an official policy describing an acceptable approach and identifying key areas, adult and continuing technical and vocational education has been organised on an *ad hoc* basis principally in fields currently popular. Organised by the private sector, it has involved unemployed graduates of the secondary and university systems. The training is often superficial and therefore fails to inculcate in its graduates the process of learning. Rather, with the smattering of material taught, the student is left wondering how to pursue more in-depth studies and is eventually driven to question the intelligence of the decision to undergo the training in the first place.

In Cameroon, the current fad is computer related studies. There exists no specific government regulations governing the creation and operation of such institutions. As a result, no recognised diplomas are issued by these institutions or operations. In fact, many such bodies have one computer and teach the rudiments of word-processing, database management, and spreadsheet analysis. Often the students do not have the necessary background to effectively understand and use these programmes. The training generally has an ad hoc nature; it is in effect theoretical. Some of these institutions, in spite of their ad hoc nature and poor equipment, charge very high fees (relative to salaries), much higher than the fees at the state universities. Given the high cost of the equipment, students cannot afford to continue their training after graduation. The correlation between competence and paper qualification is weak.

The underlying reason for the interest in computer education lies in the impression that it puts one in a more advantageous position to find a job, especially if one is amongst the first to obtain such knowledge irrespective of the depth or thoroughness. This is even more so because of the limited openings in the job market. A recent study of a local subsidiary of a large company showed little use of computer technology even when such technology is available.[2]

(6) Towards a Future Policy on ACTVE

As indicated earlier, the recent reforms in the educational systems do not refer directly to adult and continuing technical and vocational education. Nevertheless, one can infer some new implied orientations in these reforms that are relevant to adult and continuing technical and vocational education. In the new educational policy emanating from the National Forum on Education, there is a proposal to systematically recuperate drop-outs from all levels of the general and technical secondary educational streams into vocational training centres where the training will last from six months to three years, depending on the level and the field. In addition, for illiterate children or those in under-scholarised areas, there is a proposal to create training centres based on need, and in possible co-operation with the supervisory ministries in fields like agriculture, animal husbandry, pottery, etc. At the university level, a new emphasis on university-business co-operation augurs well for universities to offer adult and continuing technical and vocational education to employees of private and public companies.

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[1] [illegible] and [illegible] op. cit., p. [illegible]

[2] [illegible]: Data banks in the organisation of information in an enterprise: case of [illegible] Company. DIPET II thesis. ENSET, Univ. Douala, August [illegible]

As encouraging as these implied orientations may be for the future of adult and continuing technical and vocational education, they do not constitute a statutory policy. Clearly, these new attitudes must be transformed into legal and regulatory statutes that will result in a coherent plan based on a strategic policy on the development of adult and continuing technical and vocational education. Such a strategic policy should be proactive in nature and be based on the mega approach so that it concentrates on current and future societal good rather than emphasising the benefits to acquire either to the educational system or to the individual. It will aim at establishing a system of adult and continuing technical and vocational education in those key areas of national concern in order to contribute to sustainable development. In the political/legal facet, it should seek to establish minimum levels of skill to be attained without undue government interference and control. In recognition of the current significant levels of participation of the private sector in technical and vocational education, it should seek to facilitate rather inhibit the active involvement of this sector in adult and continuing technical and vocational education. Further, the new policy should take advantage of technological advances, especially in educational technologies, that will help in providing training to the greatest number of students at a minimum cost. Special attention should be paid to technologies of distance education, multimedia and other computer aided instruction methods, information technology, etc. The policy must pay careful attention to current and future demographic trends. Finally, it must be flexible enough to operate in a global environment undergoing rapid technological and economic changes.

In designing this policy, several systemic weakness, which threaten to undercut it, must be addressed. First, in the current and continuing economic crisis, adult and continuing technical and vocational education may not be seen as a priority. Other social, economic, developmental, and educational needs may be considered more pressing. Given the potential benefits of adult and continuing technical and vocational education, it must not be relegated to a lower priority. Secondly, the historical emphasis on general education may persist, thereby draining limited resources away from adult and continuing technical and vocational education. Thirdly, the tendency to train in isolation from potential employers may continue, thereby rendering the training unsuitable to the needs of the latter. Finally, even if this system of education is eventually established, the large numbers of candidates may overwhelm it.

Opposed to these perceived weaknesses and threats are many strengths and opportunities which will assist the development of the policy. The potential changes in the educational systems implied in the new reforms are a basic foundation for a strategy in favour of adult and continuing technical and vocational education. It suffices to build upon this foundation to formulate a strategic plan. Paradoxically, the large number of unemployed graduates also constitutes a strength in that it represents a ready pool of easily retrained candidates for adult and continuing technical and vocational education. In addition, the thousands of hawkers in the streets of the major urban centres are candidates for retraining in those areas of business management which will lead to improved efficiencies and growth and potential employment for others. Further, technological advances in educational technologies offer the means for effective teaching. Finally, at the national level, both the master plan for industrialisation[1] and for computerisation[2] have insisted on the need for adult and continuing technical and vocational education as a means of alleviating the shortage of competent personnel for both labour and managerial positions. In fact, the latter cited as a persistent complaint of computer suppliers the lack of qualified personnel and the need for continuing educational opportunities to improve the skills of available employees. Since these plans were inspired by the state, it can be argued that the potential and the political will exist for reinforcing adult and continuing technical and vocational education.

(7) Conclusions

The provision of adult and continuing technical and vocational education has evolved from colonial times, during which it was hardly existing, to the present time in which a new policy orientation has resulted in greater attention being paid to it under the drive of several factors such as the need for qualified technicians for the economic and industrial development, a high degree of unemployment among graduates of the general educational system and the faculties of the universities, the need to create jobs to address this unemployment, and the express needs of the private sector. Until recently, the private sector had carried the greater burden for technical education. However, within the past decade, the state, constrained by the factors above, has been actively involved in technical and vocational education. Adult and continuing technical and vocational education is, unfortunately,

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[1] Master Plan for Industrialisation

[2] National Computer Technology Policy Plan. [illegible]

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almost nonexistent. In terms of participation, technical education is predominantly at the secondary school level, although with the creation of colleges of technology attached to universities, it is also receiving greater attention at the higher educational level. Informal education is generally under the responsibility of ministries, and is limited to those who can be reabsorbed by the state.

The new attention paid to technical and vocational education may not yield the desired results because of inadequate infrastructure, equipment, and teachers, in terms of quality and quantity.

Although this paper has focused on Cameroon, the observations contained in it may be applicable to other countries in the Central African subregion. Clearly, this sector requires in-depth study to seek solutions to its current difficulties at both the national and subregional levels.

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4.5 Adult Learning and the Transformation of Work: An International Perspective

by Paul Bélanger

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(1) Why this surge in adult learning provision and participation?

If adult learning is gaining pre-eminence on the educational scene, it is doing so within specific contexts and in different perspectives.

(1.1) The new economic trends and the transformation at the work place

The rise in the adult learning demand is related to a second well known phenomenon: the transformation of the modes and processes of production. Under the pressure for finding new opportunities, the national economies are becoming more and more integrated in larger economic markets: the Pacific Rim, the European Union, the North America Free Trade Act (NAFTA). The pressure for greater competitiveness at the world level and in the regions accelerates the industrial re-structuring, commands drastic changes in modes of production, including the rapid introduction of new technologies.

Hundreds of national policy papers and reports[1] have been published during the last ten years in the industrial countries dealing with these economic questions. They all connect the economic crisis to the limited national capacity to compete, and all agree on the necessity to meet the pressing demand thus created for further education and continuing human resource development. The future of the national economies, we can read over and over again in these reports, will only be secured by an increase of productivity and a more intensive investment in human resource development; that is, in adult learning.

This transformation of the industrial structures and of the organisation of work questions the present state and mode of qualification, not only with respect to their redundancy and level of competence, but also with their scope. This leads towards a more generic definition of competence as well as general communication capability. It tends to induce a tremendous demand for re-training, for skill-upgrading and for the improvement of basic communication competencies and of organisational skills.

However, such a trend lead also to important changes in the international division of labour. Indeed, the specialisation of industrial countries in knowledge-intensive production involves a complementary strategy to concentrate their economic production on knowledge-intensive sectors, while shifting the more labour-intensive parts of the production to other regions, where the labour wages and the working conditions are lower.

In reaction, some developing countries, and in particular fast developing ones, while joining in this dispersed production and while benefiting from the related foreign investments, seek, at the same time, to augment their production of higher value-added goods in order to modify the terms of exchange and foster national economic development. Both phenomena increase the demand for adult learning, even more, of course, when countries insist on a bigger share of the knowledge-intensive production, on the development of the potential of the adult population, and on a more acceptable balance between export production and a country oriented economy.

It is obvious that the changing organisation of work, the introduction of new technologies, and the process of national and international industrial restructuring generate, and will engender, a growing demand for new qualification, for on-going human resource development and, hence, for adult learning in the industrialised areas of both developed and developing countries.

The boom of the educational demand at the work place is evidently far from being consistent across sectors and regions. It is more strongly supported in some areas than in others, in larger firms than in the small enterprises, in the formal rather than in the non-formal economy. The general demand for further learning is indeed thwarted by the dualisation of labour markets. A growing segmentation has been observed between the well organised formal economy and the informal economy, between the primary labour market which offers regular full-time paid jobs and the marginal labour markets relying mainly on contractual and insecure employment. This division of work prolongs its discriminatory effect in the domain of adult learning and accentuates it, by tending to preserve the learning opportunities to the more privileged and excluding the others. I do not want to imply that the wage-earners in the well organised primary labour markets do not need further education and skill up-grading, on the contrary. However they are not alone in having such pressing learning needs!

Learning in itself has no limits indeed, and this discovery is one of the more promising breakthroughs in confronting the challenges of today. But there are still severe concrete limits for many women and men who wish to participate in, and benefit from, learning opportunities. The very knowledge-intensive economy that is emerging, the learning organisations which more and more large national and multinational corporations are striving to cultivate, are often built on a drastic reduction of personnel. Though positive for those who remain inside and for the competitiveness of the firm, the prevailing policy of this kind of selective development of human potential raises the social issue of denying to the other people in the secondary labour markets of industrial countries or, in the other countries, the same right to participate, to work, to earn and to learn. Such policies raise also another economic issue that we will discuss further on: the necessity to improve the productive and creative forces outside the wage economy.

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[1] Training in Australia: [illegible] Australia: The Need for Change in 1988; [illegible] in 1991; Working Nation, the White Paper on Employment and Growth in 1994.
In Canada: [illegible] in 1992; [illegible] Quebec in 1991.
In New Zealand: Learning for Life in 1989.
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In OECD: [illegible] 1991: Adult Learning and Economic Performance in Industrialised countries, OECD, Paris.

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(1.2) The general rise of the initial education level of the adult population and the emergence of information-intensive societies

A second major factor behind the silent explosion of the adult learning demand is the universalisation of primary education and the incentive created by the increasing uses of literacy in today's societies.

A basic evidence behind lifelong learning is that educational development is a lifelong endeavour and tends to be a cumulative process: the more people go to school in the first phase of their life, the more they tend to participate in learning activities during their adulthood. Consequently, the steady rise in initial education, which is a generalised phenomenon, is projecting for the future a substantial increase in the participation of adults in learning activities. The evidence for such a trend has been shown through many surveys in industrialised (Cross 1981; Tuijnman 1991; Courtney 1992) and developing countries (Sirvent 1994; Psacharopoulos & Velez 1992; Carron et al. 1991).

This silent, cumulative transformation of education over the last decades is reinforced by the similar quiet revolution in information technology and by the emergence of information-intensive life and work contexts. It certainly constitutes one of the main drives behind the surprising surge in the learning demand among the adult population and behind the transition of the educational systems towards various patterns of lifelong learning.

The educational demand, already sustained by the general increase of initial education, is further stirred up by a ceaseless expansion of the use of written communication in daily life, in the community and at the work place. The exponential growth of information technology, and of the mass of information that is made available, can be experienced every day.

(2) Some of the critical issues that the transformation of the learning demands reflect and raise

(2.1) The tendency towards the reproduction of lifelong inequalities

The virtuous circle mentioned earlier, that is, the positive impact of initial schooling on continuing education, is, at the same time, a vicious one. This is so because of the accumulation of advantages from the school age and throughout life for some. But also, because of the accumulation of disadvantages for the others. This ambiguity results from the reinforcement from the stimulant learning environments at home and at work for some, but also from the negative reinforcement of the depressing and limited life and work set-ups for the others. The issue of lifelong learning carries with it the other side of the coin. Unless some rupture is made in current policies, unless some second chances are provided, and unless the main socio-cultural obstacles or barriers for participation in education are lifted, lifelong learning will still mean, for too many people, a continuous frustration of their aspiration and a repeated deprivation throughout their lifespan.

There is also a general trend to reproduce gender discrimination. All surveys show an over-representation of women in general adult education and an under-representation in continuing vocational education programs, except in the traditional occupational ghettos.

Remedial strategies to these inequalities need to be related to the huge literature on barriers to participation: institutional, cultural and financial.

(2.2) The reconstruction of the complete adult learning scene

The provision of adult and non-formal education, and of the forms of participation, have become extremely diverse. The diversified learning demand among the adult population provokes provisions which are often developed outside the already divided territories of non-formal, formal and vocational adult education, both in institutions and in industry. The learning demand grows, and often leads to responses organised around concepts and terms of reference unknown to the existing institutionalised provision.

It is important therefore to reconstruct the whole reality of organised adult learning, to trace it everywhere where it takes place under assorted names, different institutional arrangements, various ministries and diverse private organisations.

By reconstructing the full reality of adult learning across the institutional boundaries of ministries, by relating the still unrelated vocational and general adult education, by reconstituting an encompassing vision of the full domain of adult learning in spite of its extremely disperse provision, adult learning is becoming suddenly a societal issue. The more adult learning evolves and becomes central to the solution of problems of the world of today, the more it becomes a matter of discussion and policy-making in all areas of activities; it involves then most ministries, the various enterprises, and a multitude of associations and local communities.

The dispersed scene of adult learning is also being reconstructed by each individual who is building her or his educational biography, making bridges between formal and experiential learning, requiring, when needed, the recognition of both. By continuously looking for a subjective unity in the dispersed learning events happening all along her or his life, the subjects convert adult learning to a cumulative life process.

(2.3) The crisis of work

Globally, the present tendency, in an increasing number of countries, to offer more learning opportunities at the work place is good news. It converges with the global trend, to which I have already referred. But this silent explosion of the educational demand at the work place is neither uniform nor evenly expressed by the different groups.

Learning in itself has no limits indeed, and this discovery is one of the more promising breakthroughs in confronting the challenges of today. But there are still severe concrete limits for many women and men to participate and benefit from learning opportunities. The very knowledge-intensive economy that is emerging, the learning organisations which more and more large corporations are striving to cultivate, are often built on a needed but drastic reduction of personnel. Though positive for those who remain inside, the prevailing policy of the development of the human potential raises the societal issue of social exclusion and inequality in the right to participate, to earn and to learn. And the current way to manage this shrinking of the labour markets is often biased on gender and age lines. The prejudice that older workers do not learn as fast is used, for example, to exclude them when there is job-shortage.

It is more strongly supported in some sectors than in others (Standing 1991). It is also thwarted by a dualisation of labour markets (Piore et al. 1986). A growing segmentation has been observed between the primary labour market, which covers regular full-time paid jobs, and the marginal labour markets: either the secondary formal labour market which comprises the growing sectors relying mainly on casual or contractual employment, or the informal economies. This division in work positions prolongs its discriminatory effect in the domain of adult learning, and accentuates it by tending to privilege the better positioned and excluding the others.

Organisations are presently trying to introduce a new perspective beyond the adaptation of people to new machines. They seek to involve individuals and groups in the analysis and solution of problems and in the process of making the organisation more viable and the jobs more secure. The emphasis is thus put on the autonomy of the learning subject and on the participative approach required by sustainable human development. The efforts to unlock human creativity are at the centre of the lifelong learning endeavour.

The scenario of a global reduction of the number of jobs (Aronowitz 1994) raises a new question (ie Gorz): "Should everyone work less so that everyone may work ?" The hypothesis of a certain "collapse of work" is to be taken. One therefore finds oneself in a dilemma of either accepting the reduction of the number of jobs and concentrating more on the primary labour market and its advantages, including that of recurring education, or of shortening the length of the working week and distributing the jobs that are thus created or preserved.

(2.4) The increasing demand for the development of productive and creative skills outside the wage economy

What is true in the economic domain is also true in the other areas: without increased competencies among the population and without people's participation, the societies of to-day are not able to confront contemporary problems: no solution to health-care raising costs without health prevention, no solution to rising criminality and costly detention without crime prevention and human resource development in the poor communities, no possibilities to deal with the ecological global risks without an increasingly informed and empowered citizenry.

Neither economically nor socially can we wait for the next generation to come in order to renew and improve the competencies of the adult population. The inter-generational process requires thirty years. The demand is too pressing, and already 90% of the adult population of year 2000 have left initial schooling. The development of adult learning is unavoidable and pressing.

To improve the capacity of societies to tackle the present ecological, health or inter-racial global risks, and to create the cultural conditions of a better quality of life, new kinds of adult learning policies are emerging inside and more often outside, the traditional territory of adult education. Most recent policies on health, agricultural, population, and environmental policies now include adult learning components and the so-called IEC, Information-Education-Communication, strategies. This policy trend to resort to adult and non-formal education in the different sectorial interventions can also be observed at the international level in the plans of the International Labour Office (ILO), in the rural development schemes of the Food and Agriculture Organisation (FAO), in the recommendation of the Rio Conference on sustainable development through environment education, as well as in the initiatives of most social organisations and social movements. We are entering in reflexive societies (Beck et al.1994).

In this new economy of organised adult learning, the distinction between vocational and general education is becoming complex and, at times, less valid, both from the point of view of the demand - be it the employer or the learners - and of the educational agents. More and more firms and labour market agencies, for example, invest in basic education programs for employees (Stanck 1993) and require general qualifications. This general/vocational divide needs also to be revised from a gender perspective.

The educational motivations and the learning projects are also complex: one is attending second language courses for professional reasons but also to have access to other cultures. There is an increasing overlap in content. Reciprocal transfers of learning and of competencies are occurring between vocational and general education. We are seeing a cumulative process of aspiration and educational participation. At the centre is the learning subject who, given the opportunity, will seek to achieve synergy in his or her diversified educational biography, to construct her or himself.

The "human capital" discourse on "return on investment", which compares in the short term the effects on earnings at different levels of qualification, has tended, until now, to under-estimate the long term advantages of investing in the increase in the competence of all strata of the workforce, to ignore the costs of not increasing the "productivity of all its citizens" (Reich 1991), both in the developed countries (Benton & Noyelle 1991) and in the developing countries (see Jomtien Declaration: UNICEF 1990), and to fail to enlarge the notion of benefits to the social and cultural domains.

The economic gain should, of course, be analysed in reference to employment and wages, but cannot stop here. The benefits of educational investments in today's societies cannot be assessed without including the opportunity costs. What will be the remedial costs if we don't invest now in the prolonged basic education of all citizens and their empowerment in areas like environment? How will societies be able to bear the increasing curative and custodial costs if they don't invest in the long term in preventive health education? What will be the economic prices in the future if we don't invest, as Habermas would say, in the development of communication skills to ensure negotiation processes of solving social problems?

(2.5) The learning environments

Throughout life, informal learning events and processes take place. People live in different cultural contexts unevenly conducive to active learning. Throughout the life-course, there are learning environments which have relatively autonomous influence on the participation in educational activities and on the achievement of significant learning.

The notion of a learning society closely associated to LLL refers also to the diffuse impact of the cultural contexts in which the different social categories of learners are finding themselves in the different phases of their life. However, the impact of the various and uneven learning environments is still a poorly researched area.

The organised learning processes, during the initial phase and throughout life, take place in surroundings which may bear influence on the subjects' educational aspirations, stimulate or have an anaesthetic effect on their curiosity, inhibit or help them to be more cognisant and reflexive.

It is this informal dimension of education, the learning contexts, to which we are referring, be it the daily-life environment of pre-school children, or the norms and cultural orientations embedded in the different IE and AE settings. The attitude towards education and the predisposition for specific types of learning in the family, or in the immediate surroundings, the mere availability of books and the prevailing attitudes to written communication (Warwick 1992), the presence of local cultural infrastructures (ie. libraries, available newspapers and books, non-elitist museums, etc.) all are crucial factors of educational aspirations and of learning achievement, both in initial and adult education. Literacy education is not everything in literacy; there is also the "literate environment" across life-spans and life-spaces (Wagner 1992) which needs to be taken into account.

The learning environments refer also to the organisational cultures into which the different initial and adult education programmes operate. Such embedded silent orientations may contradict, in an implicit but efficient manner, the official objectives and discourse. They contain hidden curricula. The "male" image of many vocational continuing education programmes (in the curriculum, in the illustrations used, in the ergonomic organisation) may have a strong selecting effect. Educational research tends unfortunately to limit its object to overt educational transactions and to ignore the "institutional pedagogies" (Ardoino & Lourau 1994) at work in the family, the community and the different educational settings: real opportunities to explore, possibility to exert freedom of expression, real participation in problem finding and problem-solving, cultural space for idiosyncrasy.

The current transformation of the world of work raises the question of the influence of the working environments, or the work settings, on the stimulation and articulation of the learning demand of workers. Some management literature on lifelong education is introducing the idea of the "learning enterprise", which may in turn raise the issue of industrial democracy (Abrahamsson 1990) and enlarge and deepen the definition and expression of the learning demand.

The question is not to repudiate the new thinking on the learning organisations, but to extrapolate it to the whole of societies and of societal issues.

(3) The coming international conference on adult education: a unique opportunity to debate and explore new courses of action and cooperation

As the positive effects of the general increase of adult education provision not only on work productivity, but also on health prevention, on agricultural production, on the management of environmental risks, or on family planning are being recognised, together with the cumulative outcome, adult and continuing "expenditures" tend to increase. And adult education, in areas not directly linked to paid work, tends no more to be defined as a non-productive consumption.

By limiting to a few the opportunity to learn, we are thwarting the capacities of societies to tackle efficiently the problems and the risks to which they are, and will be, exposed.

The central argument of the Club of Rome (1979) in its famous report, No Limits to Learning, is indeed that only the spread of learning over time and space will allow current societies to resolve the problems they face, especially in the context of the limited and shrinking sphere of state intervention.

It is in that evolving context that UNESCO will organise, in Hamburg in 1997, an international conference on adult education. The objectives are to promote adult education in all areas of activities as a key to sustainable and equitable development, to forge strong national and international commitments from agencies and governments to that end and to explore new strategies and cooperations.

The 1997 Hamburg conference will be the fifth of a series from 1949 onwards: Elsinore, Denmark (1949), Montreal, Canada (1960), Tokyo (1972) and Paris (1985). But in 1997, it will not be possible to hold an International Conference on Adult Education without the involvement of other UN specialised agencies and multi-lateral organisations: ILO, FAO, UNDP, UNFPA, UNEP, UNICEF, UNIFEM, the World Bank, the European Union, OECD, the Council of Europe, the Commonwealth Secretariat, the ACCT, etc.

The specific objectives of the Conference are: first, to review the development of adult and continuing education since 1985; secondly, to identify the contribution of adult learning to help face the major world challenges; thirdly, to exchange experiences; fourthly, to recommend future policy and priorities; and, fifthly, to propose modalities for international co-operation.

A motto has been proposed for the Conference: Adult Education: a Key for the XXI Century. A sub-title is presently being discussed: "Adult Education in the Perspective of Lifelong Education". The themes of the Conference will be related to:

- Improvement and strengthening of adult education;
- Adult education, citizenship, democracy and human rights;
- Adult education, literacy and non-formal basic education;
- Adult education and work;
- Adult education, health and environment;
- Adult education and gender;
- Adult education, the media and the new information technologies;
- Adult education and special groups;
- Research, documentation and statistics.

Five regional preparatory meetings will take place at the end of 1996 and beginning of 1997: in Africa (Namibia), in Asia and the Pacific (Bangkok), in Latin America and the Caribbean, in the Arab States, and in Europe (Barcelona). Each meeting will lead to a regional report to be presented at the first day of the Conference.

The different thematic groups will be formed in 1995 under the voluntary leadership of multi-lateral and/or non-governmental organisations.

(8) Conclusions

The changing demand, the transformation of work, the synergy between educational agencies, the cumulative nature of adult learning across fields of activities, the search for better quality and real accessibility, the need for cooperation are all areas where we need to re-define the issues and re-articulate the debate.

Among our concern this week, we will have to discuss how to use the opportunity of this series of regional and international meetings to bring about the change in policies and approaches needed to make adult education a key for the 21st century.

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4.6 The Changes in the Content and Educational Approaches by Alan Aragon Castro

[illegible]

[illegible]

(1) Introduction

[illegible]

[illegible]

[illegible]

(2) Cuban technical and vocational education

[illegible]

[illegible]

[illegible]

[illegible]

(3) Labour market demands

[illegible]

development of the country, so that the teaching that takes place in technical and vocational education has a polytechnic character, and that the most up-to-date technological knowledge pervades the whole system. It is also important that the curricula has a vertical and horizontal articulation.

With respect to occupational and vocational preparation, it is necessary to address the changes that occur over the whole of life. Two fundamental factors that are important are:

- the necessity for initial education to emphasize the polytechnic approach of training, that is, to include activities to guide vocational training and professional orientation from the first years, and that these activities must be extended to the various levels;
- the demand for flexibility and for articulation among the formal and non-formal education, the productive system and, specifically, with the offering of in-service training where the worker is required to recycle periodically in order to re-transform or up-date specific skills.

The most logical, proper and convenient thing is for technical and vocational education to be attached to the global educational system in each country, such that the necessary articulation with antecedent and following levels takes place, with the different sectors of production and with the ministries, organizations and enterprises that are related to this important activity. Thus, this can be seen as a system that articulates with the economic and social development planning of each country.

The model of occupational training that is necessary to be implemented must make it possible for there to be significant articulation between the training and productive systems that are already set up and that have been developed in each country as it [illegible]. Such a model must have the following characteristics:

- a wide and multi-scope range of disciplines addressed, so that it forms a solid training base that is adequate for the different occupations and corresponds with the evolution of the productive structure of the country;
- manageability, so that it may be adapted to the constraints and demands of the productive world and for promoting development;
- dynamic, in such a way as to incorporate new techniques and, in so doing, meet the needs of an advanced technological society.

The starting point to initiate the changes that are desired is to adapt the occupational specialities to the real and potential demands of the labour market. In so doing it is important to be attentive to the requirements of the enterprises and to establish ways of communication and interchange among the training and employment centres, and to design an occupational structure that reflects the real necessities of the labour market.

(4) Pedagogical issues

(4.1) The curriculum

The curriculum design for the different specialities must be developed, having in mind the wide spread of profiles of occupations. It must include a solid occupational base and a strong practical preparation so that it might accomplish the following aims:

- develop a strong professional training in correspondence with the requirements and socio-economic possibilities of the country;
- establish a theoretical-practical knowledge system that results in a trained worker who is able to engage in different occupations that are related to the speciality, as well as those of manufacturing and services which relate to the preparation of the worker;
- promote a wide spectrum of occupations with a solid basic preparation, in such a way that the graduate has a greater flexibility to the innovation and requirements of technological development and to the multiple demands that ensure continuing employment even in the face of the constant evolution of occupational demands.

(4.2) The syllabuses

The syllabuses that address the different subjects of the curricula need to be broad with a solid general content and intellectually challenging, which enables the student to improve the power of observation, analysis, synthesis, abstraction and generalization, as well as to judge, criticize and solve problems. It is necessary also to incorporate contents of general culture and of social education that allows the future worker to understand better the world and the social context in which he/she lives.

It is also necessary to give a priority to the study of sciences like mathematics, chemistry, physics and biology, having in mind the degree to which these subjects pervade a great number of technologies.

(4.3) Co-operation

An important issue also to keep in mind is the essential need for collaboration between technical and vocational education institutions and enterprises. This collaboration may include the following:

- a signature of agreement for reciprocal assistance;
- the supply of new technical equipment, bibliography and technical information;
- the placing of students in the enterprises for the fulfilling of practical experience;
- the placing of teachers and instructors into the enterprises in order to enlarge and up-date their industrial experience;
- co-operative analysis of the needed occupational competencies, curricula and syllabuses;
- a link between the training institutions and the enterprises;
- the use of the human resources and equipment of polytechnic institutions in the development of production by the enterprises.

It is obvious, for the training and qualifications of future technicians, that there must be a close association between the technical and vocational education institutions and enterprises that will support the introduction of new technologies.

At the same time, it is necessary to offer courses that expose the graduate technician to the means of other training and qualifications that may be needed to change occupations as necessary, or further his/her career path.

The qualifying of workers must be an on-going activity based on the real world of work and the needs of enterprises. It must be sufficiently closely related to the actual occupations to allow the worker to function with efficiency in them, to [illegible] the questions and solve the problems related to particular occupations, and to adjust effectively to the changes in the organization and in the occupation.

These courses may be carried out in the same educational institutions, or in the enterprises, and may utilize different forms of training. These may include: full training, complementary training, the improving of skills, knowledge and qualifications, the specializing in occupational areas, and recycling courses. In general, these courses are built on the general foundation of knowledge and skills that has been developed in the regular education system, and they improve, enlarge and update the knowledge and skills of each worker.

The training and upgrading courses of workers who are already in enterprises constitute an efficient way to develop the qualifications of the labour force. The enterprise plays an important role by assisting in the organization and development of the syllabuses. The training syllabus must be comprehensive, beginning with the basic knowledge necessary for the labour force and that is required by each enterprise. In order to ensure this, an occupational analysis needs to undertaken for the various jobs. Also, a needs analysis needs to be undertaken of the various enterprises in order to determine expected investments, increased production, changes in technology, and expected changes in the labour force, among other things.

The content of the syllabuses must be elaborated in terms of the future needs of the qualified labour force, the real prospects of employment, and the moving to production of workers within or among specific enterprises.

(8) Conclusions

The critical challenge is to give people the knowledge, skills and attitudes they need to assume work effectively and efficiently within the context of the socio-economic development of each country.

4.7 The Changing Orientation and Policy Environment of Adult and Continuing Technical and Vocational Education

by Suresh Munbodh

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(1) Introduction

The way that provisions have been made for the adults to acquire the knowledge, skills and attitudes they need in the performance of their jobs has been changing very fast. Some countries have tried to provide the facilities for technical and vocational education and training in institutions, very often managed by the Ministry of Education. Others have left it to the private sector. Still others have adopted different combinations of the extent of collaboration between the private and the public sector.

The learning of skills by adults started centuries ago through the Guild System where the learner joined as a helper, became an apprentice, and then practised to be a master. Such a system takes too long to train a person in this world of fast changing techniques and technology. Different countries have adopted different systems to provide learning opportunities for their adults. This paper identifies a few of the ingredients that lead to the success of a scheme.

Vocational education is defined as providing general education in addition to skills.

Whilst vocational training is taken to be activities which aim to provide the knowledge, skills and attitudes required for effective and efficient performance within an occupation or a group of occupations.

(2) The evolving educational demand among the active population in the different regions.

Education, for a long time, has been considered as a gateway to economic growth, social mobility and success. For more than a century, till the 1960's, technology changed very slowly and industry made do with skills which required a low level of education. With the expansion of the education system and with more persons with education coming to the labour market, employers could afford to become more choosy and developed the n+1 syndrome. That is, if the country provided n years of schooling to its population, employers would recruit first those who had n+1 years of schooling. Such an attitude put pressure on the demand for education which kept increasing.

However, of late, technology and techniques have started changing at a rapid pace and education alone is not sufficient to enter the workforce. Employers started differentiating between the type and quality of the education of the entrant to the labour market. Different countries adopted different solutions to meet the human resource needs.

The situation as obtained in

1. the industrialised countries
2. the newly industrialised countries (NIC) and
3. the non-industrialised countries

is considered in the following paragraphs and the evolution of the enrolment at the primary, secondary and tertiary levels are summarised in Table 1.

Table 1: Evolution of Enrolment in Different Groups of Countries

	Primary (%)	Secondary	Tertiary
Industrialised Countries	99	93	50
Newly Industrialised Countries (Middle Income Group)	90	55	18
Developing Countries (Low Income Group)	50	28	5

(2.1) Vocational education and training (VET) in the industrialised countries

By the mid 1980's, the education system in the industrialised countries had changed to provide schooling to the age of 16 years to their population as a minimum. Table 2 shows how the school enrolment in a few of those countries evolved.

Table 2: Evolution of Enrolment (Industrialised Countries)

	Primary				Secondary				Tertiary	
	Total		Girls		Total		Girls		Total	
	1970	*1991*	*1970*	*1991*	*1970*	*1991*	*1970*	*1991*	*1970*	*1991*
Australia	117	107	115	107	82	82	80	83	25	39
UK	104	104	104	105	73	86	73	88	20	28
France	117	107	117	106	74	101	77	104	26	43
Germany		107		107				103	27	36
USA		104		104		90		90	56	76
Japan	99	102	99	102	86	97	86	98	31	31

The figures show that the input to the labour force had more of schooling in the 1990s than in the 70s. In the meantime, technology, too, has been changing very fast. The different countries adopted different systems of vocational education and training to meet the changing requirements. The cases of a few successful economies - those of Germany, the USA and Japan - are considered below:

The Federal Republic of Germany

The German system of vocational education and training (VET) is the best known in Europe. It rests on a consensus about the aims of VET amongst the social partners: government, employers and trade unions.

Nearly 70% of the 15 to 16 year olds enter the "dual" system of apprenticeship training where the employers provide the training and the government provides the day-release colleges. 20% study for "A" levels and 10% go into pre-vocational courses.

80% of the total cost of apprenticeship training is met by the employers who play the key role in determining course content, 20% of the cost being largely met by the state governments. Trade unions are committed to the system and help in maintaining a continuing education system by providing half employee time for courses through the learning company.

The Germans believe in:

- a disciplined and stable society
- quality - robustness, reliability and fitness in its people, products and services, and
- education which is seen as the principal vehicle for social mobility.

The United States of America

Three striking aspects of the "culture" of the USA are reflected in their VET system. The United States believes that:

- it is the land of opportunity,
- the individuals are responsible for their own destiny, and
- the dollar is a measure of success.

The system of education and training is so complex that it is described as a "vast non-system".

In any year, over 15 million young people and adults are on vocational courses in secondary schools and vocational centres: over 7 million in 4-year colleges, about 1.6 million in "trade schools"; about 6 million are engaged in off-the-job training provided in-house by the employers.

Workers are expected to be productive as from the very first day. All post-secondary education/training is fee-paying and trade unions play a role in negotiating trust funds for students and trainees with employers. The employees also provide their time to follow the training courses.

Such a non-system reacts and adjusts very quickly to changes in world economy.

Japan

Prominent Japanese cultural traits are:

- a clear national long-term view,
- aim for perfection in performance, and
- preference for consensus decisions.

Education and training have distinct roles.

The Japanese economic growth is largely attributed to the expansion of post-compulsory schooling beyond 15-16 years. About 94% of students stay on for three year courses. In one generation, Japan has become a mass higher education nation with a participation rate of 37% in its 1000 universities and junior colleges.

Vocational courses are not popular and employers prefer the socialised, adaptable, "blank sheets" produced by the general, broad-based education system. Employers are less concerned about what the applicants know and more about their willingness and ability to learn.

Workers attend training courses in their own time on entry to work. On-the-job training (OJT) through group working, quality control circles and job rotation is part of Japanese culture. During recession times the volume of training increases. The private sector's contribution to training is on the rise.

Observations

The three countries adopted different solutions for the development of their education and training and they have individually been successful within their own environment. What led to their success? They had clearly defined roles for education and training and were COMMITTED to make the system work. No half-hearted measures ever lead to success. In all the three cases the vocational education and training was considered within the overall social, economic and cultural environment. The style of management and leadership also matched the vocational education and training system adopted. The roles of the school, as well as the enterprise, are clearly defined and each one complements the other. They do not compete with each other, and resources are properly channelled.

(2.2) Vocational education and training in the newly industrialised countries

The newly industrialised countries, like Malaysia and the Republic of Korea, have promoted an export-push development which in turn provided more resources for investment in vocational education and training. They also found that a better vocational education and training for adults pushed development.

The evolution of enrolment in these newly industrialised countries is given in Table 3:

Table 3: Evolution of Enrolment in the Newly Industrialised Countries
(some examples)

	Primary				Secondary				Tertiary	
	Total		Girls		Total		Girls			
	1970	1987	1970	1987	1970	1987	1970	1987	1970	1987
Malaysia	87	93	84	93	34	59	28	59	4	7
Republic of Korea	103	107	103	106	42	88	32	88	16	40

The newly industrialised countries have created a thirst for learning amongst the adults. Different schemes have been put into place to provide learning opportunities. Well-equipped centres have been built, industry has set up training facilities, individual organisations and associations have set up training centres, apprenticeship schemes have been developed.

(2.3) Vocational education and training in the developing economies

The developing world is lagging far behind in the provision of basic education to its population. Be it in Asia or Africa, the education system at the time of independence was not as developed. Education was accessible to the select few. After independence the countries found themselves facing a multitude of problems including the development of the economy, the infrastructure, the education and training system, etc. Different countries chose different paths to tackle the different issues. Some chose to concentrate on the development of infrastructure, especially in the urban areas. Others chose to concentrate on the development of the educational training system, whilst others chose to be more inward looking and preached self-sufficiency. In the race, not many have been successful as very few adopted a holistic approach to development and have not been prepared to form part of the global village.

Very often, a few generations did not have access to schooling and the countries have recently been striving to cope with the problem of adult literacy and training. Some countries are finding it very difficult to shift workers from job to job to increase productivity. They are consequently putting into place adult education programmes for workers and are putting up training centres to improve their competencies or to make them multi-skilled. The school enrolment in some of the countries are given in Table 4:

Table 4: Evolution of Enrolment in Some Developing Countries
(1970 - 1987)

	Primary				Secondary				Tertiary	
	Total		Girls		Total		Girls			
	1970	1987	1970	1987	1970	1987	1970	1987	1970	1987
Ethiopia	16	29	10	21	4	12	2	11	0	1
Burundi	30	70	20	63	2	6	1	4	1	1
Bangladesh	54	77	35	71	..	18	..	12	3	4
Madagascar	90	92	82	91	12	18	9	16	3	3
Nigeria	37	71	27	62	4	28	3	17	2	4
Pakistan	40	46	22	31	13	21	5	13	4	3

Many of the countries experimented with vocationalising of their education system to solve the unemployment problem or to better match the needs of the economy. However, studies in Kenya, Tanzania, Colombia, amongst others, have shown that vocationalisation of education as practised by the different countries has been neither cost-effective nor productive. Of late, the countries are trying to set up organisations to manage and to provide training. Training is more expensive than education. Initially, the learner paid for his/her training. Gradually the burden was shifted to the employers who, in turn, have tried shifting the responsibility to the government. The right mix has not yet been found. However, governments have tried through the collection of a levy to involve the private sector in the financing of training for adults. More often than not the levy has been used to finance the government budgets rather than to promote training. The experiences of the Latin American countries, where the funds were managed outside the direct control of the government, display some measures of success.

Mauritius has a 6+5+2 education system with primary education starting at 5 years, secondary schooling lasting 5 years, and upper secondary schooling lasting 2 years. The enrolment at the primary level is almost 99 per cent, whilst at the secondary level it is 55 per cent.

Adult education and training till about 5 years ago was mainly the concern of the Ministry of Education. The demand for training was growing very fast and government set up, in 1988, the Industrial and Vocational Training Board, a corporate body to:

a) advise the minister on matters relating to training;

b) monitor the needs for training in consultation with relevant authorities;

c) administer, control and operate training schemes; and

d) provide for, promote, assist in, and regulate the training or apprenticeship of persons who are, or will be, employed in commercial, technical and vocational fields.

The IVTB has brought major changes in the provision of facilities for learning. It has done this through:

- in-house training in industry;
- workers attending courses in institutions registered with it;
- apprenticeship;
- distance learning; and
- institutional training.

This has promoted the training of more than 80,000 persons as shown in Table 6.

Table 6: Number of Persons Following Training Courses 1988-1995

	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Management	888	3026	7189	8360	10438	7183	1309
Finance	813	997	450	997	817	1560	134
Information Technology	450	217	4820	5466	6508	7388	1477
Engineering	149	122	2114	2796	2778	1197	368
Hairdressing	-	-	182	115	158	164	13
Hotel and Tourism	132	116	482	1008	2069	1423	133
Agriculture	135	25	138	163	150	212	91
Textile	115	-	153	241	150	116	17
Jewellery	-	28	68	69	60	70	2
Office Skills	-	-	138	358	230	455	58
Printing	-	-	63	-	27	38	10
Footwear	67	163	-	17	40	20	28
TOTAL	2588	4980	15793	19148	23024	23742	968

(3) The changing policies regarding the activation of the demand and the financing (costs and return on investment)

Only a few decades ago education was available to a select few. Many of those who did not have access to education did not even feel the need for it. The type of development taking place as well as the existing environment did not require much numeracy and literacy from the adult workers. Today the workplace, as well as the living environment of the adult, is changing very fast - putting pressure on the adult learner. Policies regarding adult education and training are fast changing. Efforts are being made by the government, employers and the workers to provide opportunities for the adults to learn.

Resources are getting scarcer, and the monitoring of the cost to implement the programmes using different alternatives is becoming essential.

(3.1) The changing policies regarding the activation of the demand

The industrialised countries took decades to make education available to all the children, and gradually raised the compulsory school-leaving age to 15/16 years. At the same time, the International Labour Organisation declared it illegal for children under 15 years of age to work. Such a policy makes it easier for the industrialised countries to provide learning opportunities for the adult. Those who are working could improve their knowledge and skills through apprenticeship and off-the-job learning, as they have the minimum of education to build on. Some countries developed technical colleges, colleges of further education and polytechnics to solve the problem of adult education and training. In other cases, open learning has been followed to improve the quality of the human resources.

The industrialising countries have a more difficult task. They have, in addition to providing skills training, to provide courses in numeracy and literacy. These countries have set into place training organisations, training centres and training schemes, and are encouraging enterprises to provide in-house training for their workers. In the industrialised world the learning company is becoming commonplace, whilst it is a far cry in the developing world.

Techniques and technologies are changing very fast. Further, Mauritius is moving from an agricultural economy to an industrialising one. The industries are faced with the need for new skills and better performing workers to face the international challenges and competition. The demand for training is on the rise. The IVTB has promoted the activation of the demand by providing incentives in the form of

- grants, and
- tax-rebates

to employers and tax-free facilities to training providers. The adult learner also benefits from an additional tax concession when she/he attends a course in an IVTB institution.

(5.2) The financing of adult education and training

Very often facilities for adult learning are provided by the state. The organisations or centres providing the facilities are administered as part of the service sector, with little heed being paid to the cost-effectiveness of the services. Heavy investment made in the public sector to provide expensive equipment for training has very often not been cost-effective. After a short period, the institutions find themselves in situations where they cannot maintain the equipment in running order, as the recurrent costs cannot be met. Such experiences have left behind a bitter taste and have slowed down the financing of training.

Prior to 1989 in Mauritius, training was not co-ordinated. Different ministries organised training and earmarked funds in their budgets for such provision. With the establishment of the IVTB the financing of training took a new departure. It is now financed through:

- a 1% levy paid by employers on the total wage bill,
- a grant from government, and
- fees paid by the trainees.

The levy is used to finance 50 per cent of the recurrent expenditure of the IVTB and 15 per cent of its capital expenditure, with the rest being financed by a government grant.

(6) The multiplicity of government and non-government actors

In the industrialised countries, many of the big firms are already convinced of the benefits of training. A large number of firms devote 4-5 per cent of the salary bill of its workers for training and have set up training centres within their premises. They look at training as part of the investment in the production process and are developing the learning company. The smaller organisations find it more difficult to provide such facilities.

In the newly industrialised countries, the situation has been rather different. At times a high proportion of the work force has not had the basic schooling. Hence, Government set up different schemes to promote adult literacy. Industries and NGO's also joined in the effort. International organisations like UNESCO and ILO helped, and, at times, provided relevant curriculum materials, books and other learning aids to facilitate the acquisition of basic numeracy/literacy and other skills. Voluntary organisations also helped by providing numeracy and literacy classes after working hours and during week-ends.

Local Authorities organised similar classes for adults in their regions and, in some cases, provided facilities for the learning of basic skills, mostly in handicraft.

Industries and the business sector, through an informal system of apprenticeship, trained their workers who were, as in the old days, recruited as helpers before becoming apprentices. Such training required a long period of learning before any skill was properly internalised. In addition, the Ministry of Education, Ministry of Labour, Ministry of Employment, Ministry of Youth and Sports, Ministry of Women's Affairs, and others, also provided training opportunities for the adults. The courses were not properly planned. There was no co-ordination, and the different organisations were providing certificates which, at times, created confusion amongst the employers.

Such a system, or non-system, depends very much on the individuals for the quality of its delivery. At times the organisation did provide quality training.

whilst at others, only a lip-service was paid to the scheme.

In Mauritius, just like in many other former British colonies, technical education and training was offered as a second choice to general education. The responsibility for training rested with the Ministry of Education where it had a very small budget allocation. However, the need for training due to the nature of the activities taking place was felt by different governmental and non-governmental organisations. Thus the different ministries, organisations and the private sector got into the provision of training which was neither planned nor co-ordinated. It was only with the setting up of the IVTB that order has been brought about in the sector.

(7) The place of public institutions, the industry and the civic society in adult and continuing technical and vocational education and the evolving relations between them

Public institutions have very often identified the needs for adult learning on their own without much interaction with the productive sector.

The curricula were usually designed by teachers from schools and the approach to learning was the same as that practised in the institutions. The organising of classes within the public institutions did not meet with much success. Schemes were run on an ad hoc basis with no continuity, monitoring or follow-up. Very often, adult learners relapsed into illiteracy and functioned as before.

The industries, especially in the newly industrialised and developing countries, were faced with the introduction of new technologies with people who were familiar with mainly an agriculture based economy. Industries could not wait for the public sector to provide them with people possessing the right skills. Thus they managed to train operators to operate the new machines and equipment. However, with technology evolving very fast, industries have found it very difficult to keep upgrading their workers, especially when they did not possess the basic skills of numeracy and literacy. At times, industries have relocated themselves just to have access to better educated and skilled workers.

The civic society has promoted technical and vocational training when its costs are not high, when it is not too demanding, and when usually the skills to be learned are not complex. Thus, in the initial stage of industrialisation where low level skills are required, civic societies have contributed to a certain extent to the development of technical and vocational training. Such societies have found themselves faced with a complex situation once industrialisation took off.

Very often, the knowledge and skills required were beyond reach for them to be effective providers of learning opportunities.

Countries are gradually trying to establish better relations among all the social partners to provide more effective learning possibilities for the adults. In some cases, autonomous organisations have been set up outside the public sector to provide for better communication amongst the different partners, i.e. public institutions, industry, and society. Such ventures are relatively new in their operations and management, and there are not many institutions which have successfully implemented such structures.

The IVTB is a partnership between the public and the private sector. It is a para-statal body which is managed by a Council made up of seven members from the public sector and seven from the private sector.

It is responsible for the planning, monitoring, controlling and regulating of training in all sectors at all levels, as well as for the implementation of training programmes. It acts as a clearing house for all training taking place in the country and approves training programmes. It ensures the best utilisation of training facilities, and sees to it that there is no duplication and wastage of resources. It encourages industry, through incentives, to provide for their own training needs, and only intervenes in the provision of training facilities when the other partners are not in a position to do so. Thus, management training, training in Information Technology, etc. is mostly done by the private sector, whilst training requiring heavy investment, i.e. in fields like electronics, jewellery, precision machining, printing etc., is provided by the IVTB.

(8) The participation of the social partners in decision making

The participation of the social partners in decision making has, to a large extent, been governed by the type of government obtained in the different countries where adult learning has been financed. In industrialised countries, e.g. Germany, where the apprenticeship scheme is well developed, the society, employers and trade unions maintain constant dialogue to improve the quality of the workforce. In the case of the Latin American countries, the setting up of independent funds generated by the collection of a levy paid by the employers also provide a tripartite collaboration to promote training. The funds are used solely to provide training. In Africa, similar funds have been established, very often within the ministries. Thus, they did not have the autonomy to operate. It is usually the government which decides on the use of the funds. There is little consultation and interaction amongst the employers and workers. Such a situation has led to a provision of training which very often does not meet the needs of industry. Thus, it tends to get further away from collaborating with the training institutions.

The extent of collaboration among the social partners varies from country to country, with the successful ones being those which have promoted collaboration among the government, employers and the workforce.

Mauritius has since long realised that the collaboration of the social partners - the employers, the government and the workers - is essential to the successful implementation of training. The IVTB is thus managed by a council made up of seven members from the public sector and seven members from the private sector. To involve all concerned, the professionals, the workers and the employers, in the decision making process, the council has set up Training Advisory Committees (T.A.C.s) for the different sectors to:

a) serve as liaison and avenues of communication and feedback between commerce and industry and the Board;

b) examine and review the programmes and facilities for training provided by the Board and by commerce and industry and to advise on how training of persons for vocations and skilled employment in commerce and industry can be provided for, promoted and improved to meet the requirements of the economy;

c) classify into principal occupations the jobs done in commerce and industry and recommend to the Board the standards for certification in each of the vocations;

d) advise on the development of curricula at different levels for the various vocations;

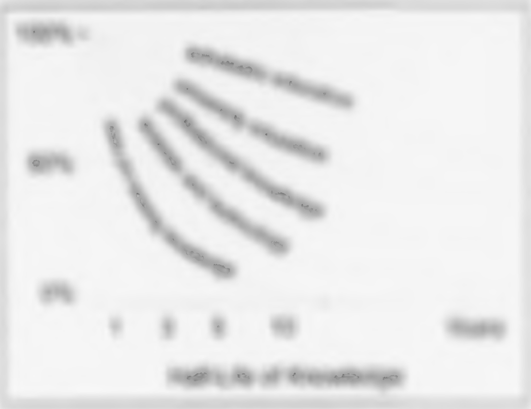
e) any other matter related to training.

There are presently 12 T.A.C.s which advise the council. Such a system ensures that training is not done for its own sake but rather to meet an identified need.

(7) The way ahead

The environment for adult and continuing training and vocational education will go on changing much faster than it has done in the past. However, the provision of learning opportunities will also have to take into consideration the parameters given in Chart 1.

Chart 1
Development of Knowledge
from FESTO DIDACTIC



Today, technology, be it at the workplace or in the home, is changing very fast and hence the technology to be used to promote learning is to be constantly updated to the evolving situation. The usefulness of the information and skills acquired vary with time, and the half life, i.e. the time taken for the knowledge and skills to be only 50 per cent relevant, has been measured for different types of knowledge and it is found that scholastic education has the highest half life, whilst electronic data processing the lowest, as shown in Chart 1. Training which has a short half life has to be properly planned and implemented to be effective.

Long training programs, especially for workers, have been found to be less effective. Modern training programs are short and to the point, with the tendency nowadays to develop modular courses supported by appropriate technology, promoting faster learning.

It has also been observed that people learn by listening, seeing, talking about and doing. The retention rate of the learning occurring varies with the method itself. It is noted that learning is more effective when achieved through "doing" and less effective through listening.

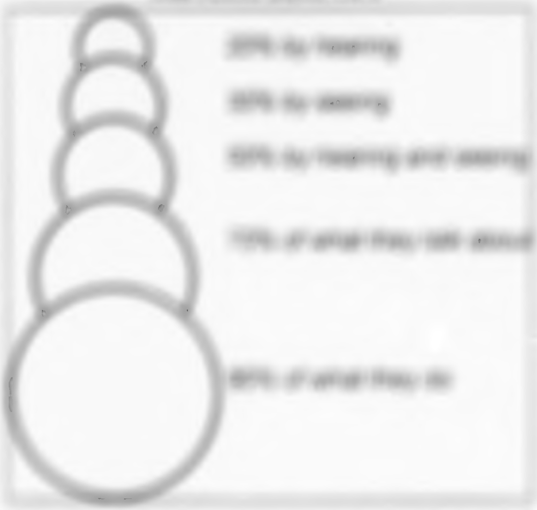
Techniques and technologies will go on changing faster and faster still. The technical and vocational education training programmes will have to take into consideration the above observations.

Thus the adult and continuing technical and vocational education and training will have:

- to be as near as possible to the work place;
- to be modular;

- to be flexible
- to provide opportunities for the individual to learn at his/her own pace
- to be practically oriented
- to be competency based
- to provide the basis for further learning

Figure 1
Pupils' Retention
[illegible]



The percentage of what is seen and remembered and heard and remembered is given in Chart 1 above.

Above all, the commitment of the private sector in the identification of the training needs, the development of the curricula, the evaluation of training, and the financing of training is essential for adult learning and vocational education and training to be successful.

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4.8 The Transformation of Work in the Different Regional Contexts by Fernando [illegible]

Fernando [illegible] is the Director of the Department of [illegible] within the Ministry of Education [illegible]

(1) Introduction
(2) The internationalization of the issues of productivity and competition
(3) [illegible]
(4) [illegible]
(5) [illegible]
(6) [illegible]
(7) [illegible]
(8) [illegible]
(9) [illegible]
(10) Conclusions

(1) Introduction

The transformation of work at regional levels has been affected, world-wide, by the process of commercial opening, which produces, at enterprise level, the development of activities that permit quality assurance and productivity on the basis of [illegible]

This implies that the nations of the area require now and toward the future, a qualified worker that responds to these new needs, mainly in the light of a great zone of commerce in the American continent in 2005. This means an enormous challenge for adult and continuing technical and vocational education.

(2) The internationalization of the issues of productivity and competition

The transformation of the economy in Central America, from a economic [illegible] to a economy of major opening, [illegible] the globalization, has changed the requirements of the productive sector in terms of the skills of their workers, where productivity and competition are the basis for the success.

The opening process began without preparation of the productive sector. [illegible] of the nations of Central America to confront it.

The lack of preparation prevails in their technological infrastructure as well as in the training level of human resources.

However, this difficult situation represents at the same time an opportunity to improve, since our societies and their components should create the sustainable conditions that allow them to economies with success in the globalisation process. This enables them to achieve levels of competition that facilitate the overcome of the transition phase, strengthening and consolidating the productive capacity, in order to develop in a sustainable way.

The appropriation of the technology necessary for this development could be relatively easy to attain if the countries want to achieve fast and efficient the training programs for their human resources. These would not only utilise the technological instruments that come from other nations, but also be capable of generating their own. This would bring them the possibility of offering to the market intangible goods, for example, financial services and computer programs.

The opening up of subregional markets to international competition, as well as the need to go with success into the specific markets outside the region, implicates structural changes in the productive sector. This is assisted in Costa Rica by an important level of infrastructure. This facilitates the incorporation of new technology, of intensive labour use, and is necessarily maintained at international markets as well as for the local. The latter is increasingly penetrated by goods from all around the world.

At the same time, the productive apparatus requires workers with new skills that result in increased productivity in order to confront the new markets.

That means that adult and continuing technical and vocational education needs to be focused on the development of the people and result in competitive abilities necessary to confront the new sceneries. It should also fortifying in them the values of responsibility and permanent commitment, with the capacity to adapt to the changes, to continually improve, and be directed to personal and society growth.

(3) The impact of the introduction of new technology in the productive sector

At the present time, and even more in the future, the societies and the different occupations will be progressively considerably systemic. It is thus that there will be the need for a wide range of abilities necessary to operate common equipment, as well as the more sophisticated.

All that, not only in industry and services, but also in agriculture, where the numbers of people working in it will continue to be significant, and where there is the necessity to give added value to the products.

remains a vital issue for achieving a harmonious and balanced development between the rural and urban area.

This has implications in general as well as technical and vocational education in order to achieve the necessary quality of human resources. This decreases the differences in skills to carry out the same work, and increases the possibility of enterprises being established in rural areas, with the consequent development of it. This means that adult and continuing technical and vocational education should be incremental, including the quality assurance, the productivity and computer technology, with these new issues incorporated in the programs, in order to promote changes in the productive processes, especially in activities of major consequences in the international markets.

Because of this, adult and continuing technical and vocational education confronts new challenges, for example, the developing of short term programs in order to increase the human resources skills required immediately for the productive sector and begin a process of long term training in order to develop the ability of learning to learn, offering the capacity of adaptation to future changes.

On the other hand, the accelerated changes in the technology as well as in the labour markets, which are easy to see in the developed countries, are also happening in our countries, where we can see the differences between technical changes and the teaching processes in adult and continuing technical and vocational education in equipment and tools. Above all, this is common in teachers with old knowledge, who, in many cases, teach processes or [illegible] tools for the people who require to serve that knowledge today and in the future. In the rhythm and concordance of the labour market between the productive sector and adult and continuing technical and vocational education exists a vital issue. That is the need for the development of human resources that are prepared to execute their work with high levels of productivity and competitive. It seems that the "dual system" of technical and vocational education utilised in Europe, and that is adapted to the culture of our societies, results in an excellent methodological option to increase the quality of the human resources, with great capacity for learning by themselves.

Diverse experiences of the "dual system" of technical and vocational education has developed in Costa Rica, mainly in programs for adults, with the participation of experts provided by the government of Germany. We hope to consolidate actions in this area in the next two years. Also important is the development of programs of teacher training.

skills, with good results, mainly in the metal mechanics field. Similar experiences have been developed in Honduras, Guatemala and of the Dominican Republic, all of them in co-operation with the government of Germany.

The response to programs of the "dual system" of teaching, adapted to the culture and conditions of each country, should be one of the lines of action predominant in adult and continuing technical and vocational education with the purpose of having a human resource with the abilities and the know-how that decreases the necessity of a double educational intervention, with the consequent double investment.

On the other hand, one of the problems that confront the introduction of new technology in most small to medium enterprises, as common in our countries, is the slow incorporation of it. This is caused mostly by the lack of finance, of qualified human resources, the problem of low general education, mainly in the group of senior age, and a geographic dis-equality where the people in rural areas have serious problems of low general and technical education. Adult and continuing technical and vocational education has addressed its programs to this area mainly in agriculture, without including the general education necessary for the development of ability and skills.

Many of these programs are not linked with the rural development. This situation should be corrected in the future. The internationalization of production and competition has announced adult and continuing technical and vocational education to change their programs in order to attend to the real needs of the producers, including computer technology, productivity and quality insurance. These should be the core issues of all the programs because they apply to any activity.

To conditioning resistance to change and to learning new technology should be one of the principal objectives to achieve. This will allow us to confront new labour realities. In many cases this basic resistance from workers through the lack of general skills in the workers that do not allow them to learn new processes because of a low educational level. And given that in this day occupations are less and less being able to be undertaken with low levels of education, the capacity of the people to access available employment is lessened.

All this gives vital importance to adult and continuing technical and vocational education. This, in the future, should not only teach immediate skills needed for the work place, but, in addition, the development of techniques of learning to learn, observation, and programs that permit the understanding of scientific and mathematics principles in order to create the necessary competitive abilities to confront the actual employment requirements that will be needed in the future.

That is the reason why, in the future, the training programs for adult and continuing technical and vocational education need to emphasize the development of general capabilities in the labour force, even before learning the skills for the work place. This will give the opportunity for self-learning the new technologies in order to adapt to the changes in the jobs and move to a new employment if it is necessary.

In the region, the globalization of the economy has promoted work with sophisticated technology applications in all the sectors. This has consequently shifted the employment trends in Central America from a traditional agricultural base that was the principal focus for employment to the service and commerce sector, similar to the developed countries. However, the same agriculture sector, as well as industry and services, require of workers higher qualifications in order to attend the elementary needs of each nation. In the agricultural sector we can only attain the increase necessary in productivity without damages to the environment and offering added value to goods, through this type of education. For the industrial sector, there is needed strong changes in order to confront international competition that promotes productivity in the production processes, maintaining and obtaining a growth in the market, with the consequential maintenance of the work places.

A similar situation applies to the sector of commerce and services, where the development of skills in order to utilise computer technology, and the need for at least a second language are essential.

In all, the same existing in Costa Rica has increased the capacity to face competition, adult and continuing technical and vocational education should develop and strengthen in order to support such competitiveness in the future. Thus, this education will become a means whereby people can progress in their occupations and their careers. Adult and continuing technical and vocational education must, at the same time, develop in the workers, competencies that support economic and social progress in the people.

III Analysis of the employment trends

The trends in the labour market in Costa Rica, as already mentioned, are changing from agriculture as the principal source of employment to the sectors of industry, services and commerce. The employment

[illegible]

[illegible]

(5) Segmentation of the labour market and the evolution of work

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

(6) The significance of active labour policies

[illegible]

(7) The rising unemployment

[illegible]

[illegible]

(8) The environment for on-the-job training

[illegible]

(9) Other issues and questions

[illegible]

- [illegible]
- [illegible]
- [illegible]
- [illegible]

[illegible]

[illegible]

[illegible]

[illegible]

[illegible]

(10) Conclusions

[illegible]

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[illegible]

[illegible] Cultural Diversity in the Contemporary Workplace [illegible]

[illegible]

[illegible] Introduction

[illegible]

[illegible] The meaning of culture

[illegible]

[illegible]

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ingredients combine together in a harmonious and integrating fashion. Translated, this metaphor signifies that each person retains, without compromise, their essential vitality as a Vietnamese Buddhist, English sceptic, or Samoan Lutheran, etc. Being able to work together and have respect for their uniqueness, they enable the organisation to be successful. Sometimes the wisdom of a particular traditional ethnic affiliation enables an employee to make a much stronger contribution just as a slightly enhanced dose of a particular ingredient in a particular salad can alter the taste of that salad.

(4) The "melting pot" approach

On the other hand, the "melting pot" approach, a concept contributed by the French Enlightenment, suggests that all ingredients in a recipe through the cooking process will lose their individual taste. The whole becomes a substantially new phenomenon. Indeed, the parts sacrifice their individual vitality in order that the dish becomes a unique taste treat. Thus, in the workplace, the "melting pot" approach means each member of a community must expect to put aside their subculture, their ethnicity and their racial specificity. Thus we have a homogeneous workplace where all the differences are overcome. Although I prefer the "tossed salad" metaphor, there is one aspect where the "melting pot" analogy works. According to my description of culture, a single workplace culture is required. This would be like a "melting pot" in the sense that the most appropriate values of each culture are examined, discriminated and utilised in determining the overarching value system that is for the greater good of the whole community. A single system of values becomes all important. Perhaps the "tossed salad" metaphor may incline employers and employees to believe that their individual tradition is more important than the whole. Thus true synergy or true unified purpose may not be possible because each person has a primary commitment to their own discrete values system, just as a walnut within the tossed salad retains its primary nature as a walnut.

On the other hand, when people agree to join the culture, they agree to accept its transcending values because that culture is an integrating system of meaning which enables people to relate with each other and to their organisation. This should entail a values system where people's ethnicity and racial characteristics are respected. This respect would mean that they are enabled to affirm the particular values of their subculture as much as possible. This would bring the richness of diversity to the organisation and enable the virtues of synergy to manifest. Occasionally, as mentioned earlier, there will be clashes. Then the employee and employer will need to negotiate according to the transcending system of values developed by the organisation. Perhaps there will have to be compromise. But if the compromise is sorted out with respect and dignity, both parties can benefit from increased self-understanding.

Thus, I affirm a values system which respects ethnic diversity. But higher on my hierarchy of values is the value of respect for the whole. So, if an individual's value is in conflict, the values of the whole must take precedence. Of course, this can lead to an authoritarian totalitarianism. However, the highest value in my system of values is respect for people. This renders authoritarian totalitarianism impossible. So, when sorting out each inevitable compromise in order to continue the functioning of the organisation, it is crucial to respect the being of every person. This is why I affirm the "tossed salad" approach which affirms that the different ethnic orientations can enrich the workplace. But, again, to avoid anarchy, there must be evident a transcending hierarchy of values which constitutes the culture of an organisation. Employers and employees need to embrace this culture in order for the organisation to thrive. Thus, we somewhat surprisingly see value in the metaphor of "the melting pot".

(5) Culture and the workplace

The question of whether people from the cultures of certain ethnic traditions will better suit the culture of a contemporary workplace is a complex matter. My view is that it will depend more on a particular context and on the particular organisation's governing system of values. I do not believe one racial genotype or one ethnic tradition will necessarily be any more or less successful than any other. It depends upon what chances a particular individual has within a particular context or what values motivate the home and/or the workplace. The pace of work endured by a Samoan broker on the stock market will be radically different from the Samoan fisherman who has German ancestry in the village back home. So it is for the African Moslem hospital intern recently graduated from medical school and the deprived, unemployed, uneducated African Moslem from a far off village.

If the culture of an organisation respects its employees, offers appropriate rewards, encourages with staff development opportunities, provides meaning, purpose, trust and dignity, the majority of employees will respond positively. If the atmosphere is characterised by a lack of empowerment, of trust and personal goodwill, then the experience will just "be a job to be endured" for as employees - regardless of ethnic or racial affiliation.

The international workplace demands various monocultural attributes. For example, the English language has become the international language. It is the language of international databases, conferences and Internet. Four out of five letters posted are now written in English. Common dress codes characterise business people from most countries. Committee meetings are structured with similar agendas. Financial operations have an international coherence.

Any firm that participates in international business will have to accept the necessity to play a monocultural game to a significant extent. Nevertheless, a sensitive organisation will establish a culture which as much as possible respects the cultural traditions of the employees and local populace. In one sense, a workplace within a homogeneous society, such as Japan, achieves this more easily. However, this homogeneity might make it more difficult to be appropriately monocultural on the international level when an appropriate international monoculture demands that all cultures are treated with respect. A Malaysian business operator with a history of multicultural experience and a clear perception of the monocultural needs of international business may well be more successful than someone from a monocultural society. So, paradoxically, by becoming citizens of the global village shaped solely by the values of Western culture, it may be more difficult to become sensitive to other cultures.

Unquestionably, the culture of a multinational business organisation will need to have cultural sensitivity as an operating value, without requiring the organisation to be bicultural or multicultural.

An example. When advertisers in Singapore placed their hoardings for a new campaign to promote a remedy for an ailment, they first showed the person writhing in agony, the second hoarding showed the person consuming the medicine, and the third beaming with pleasure at the remarkable cure. In English, the international language, this would have been acceptable. However, in Mandarin speaking Singapore, where they read from right to left, the campaign was an advertising disaster.

Thus, whereas the organisation needed to play a monocultural, international game in most of its dealings, in this specific instance it had to be ethnically sensitive to a local tradition.

Thus, ethnic sensitivity must rank as a key operative value within the culture of an organisation. In order to "do" business in Singapore, the advertising company should have employed a Mandarin speaking Chinese. This would have made the organisation bi-ethnic. It would **not** have made the organisation bicultural. But it would have enabled the organisation to fulfil what should have been one of its key values, ie., sensitivity to the ethnic traditions of others.

(6) Cultural sensitivity

I affirm cultural sensitivity as a key value for several reasons:

a) employee commitment depends upon their being respected for who they are, regardless of their primary cultural affiliations.

b) the rich variety of ethnic languages, traditions, histories, stories, philosophies, religions, art, cuisine and music adds fascination to our human experience.

c) creativity in the workplace often emerges from the readiness to see things from another perspective.

d) economic well-being depends on suiting the product to the local market.

e) learning is enhanced if occurring within a culturally appropriate context.

Experience affirms that people can learn more easily from within the context of their own culture. At the Auckland Institute of Technology we worried about our failure to educate Maori students. Then we established a Maori Faculty with programmes developed by Maori for Maori. Their cultural infrastructure is reflected in what they learn and how they learn. The results have been outstanding. As a consequence the Maori feel more secure within themselves, more integrated within the Institute, more confident and better prepared to enter the workforce.

Creativity is particularly important in our turbulent, fast changing society. An unusual perspective from another culture, tradition or context will challenge what we perceive to be the way of doing things. If we are open-minded, then we will embrace the dialectical possibilities of this clash of perspectives. The resulting synthesis could heighten our understanding, improve our opportunities, and enhance our abilities to relate with other people.

Since cultural sensitivity is crucial, I affirm that the various discrete cultures in our global society should be preserved. We cannot, and should not expect that they will be preserved precisely as they always have been. Throughout history, all of our cultures have been modified by alterations in our contextual experience and our growth in understanding. It is to be hoped that the carborundum effect of international travel, television images and the internationalisation of the English language, fast food eating, standards of sartorial elegance, do not diminish the rich vitality, the fundamental wisdom, and the community bonding of the various individual cultures of the global community. On the other hand, we might hope that some detrimental cultural activities will be modified in the glare of international experience.

We should oppose the tendency of some to dismiss the cultural values of others as superstitious fetishes without recognising our own values will be superstitious fetishes for someone else and probably for our own grandchildren. Importantly, we must respect each culture while not necessarily affirming all of their aspects.

It is crucial that regularly we examine closely the values or culture of our own organisations and examine also whether or not some of the ideals and values of other cultures, even alleged counter-culture movements, could have some value for us. We are not discussing the tangibles of facts and figures but the values and ideals with which we shape our organisation and which govern our attitudes and guide our actions in our social and work experience.

We do not become culturally sensitive by osmosis. It depends upon us developing a clear understanding of what culture is, and making the difficult effort to experience and learn from dimensions of the cultural diversity of other groups in the global village.

(7) The Western value system

I would have to share my fear that the values we have endorsed within our Western culture have significant weaknesses for a civilisation that aspires to do well in the next century. Our Promethean attempts to add more and more complex technical solutions to fundamentally human problems, our infatuation with bite-sized information presented as constant entertainment, our obsession with the will to power, to control, to regulate while also advocating the respect for everyone to do their own thing and succeed in the revolution of rising expectations by a competitive self-seeking for growth is not a monoculture to which I would encourage others to aspire. Being competitive, efficient, focused, accountable, conforming, and managed may have some validity. But the eroding harmonies of Mother Nature, the dangerous "might is right" ideal of nuclear weapon bearing states, the alienating definition of achievement as pertaining only when someone else loses out, and the obsession with analytical, linear, technical thinking leave us with diminished prospects. We need to find the means of injecting the values of all the great wisdom traditions such as respect for people, co-operation, holistic thinking and reverence for the integrated systems of nature.

I believe we are more likely to change for the better our Western culture if we consciously affirm, carefully explore, and sensitively discuss the cultures of wisdom literature and many of the indigenous cultures which our culture largely ignores. We cannot afford to melt down the ethnic traditions and wisdom into the Western monoculture. Not only do we not want the people of these traditions to feel outsiders or socio-cultural deviants but we want them to join with us in striving for a more dynamic, enriching culture. Just as the fabric of a tapestry is more beautiful when different coloured fibres are woven into unusual patterns, the existence of ethnic and religious diversity provides the governing culture with creative perspectives and unusual insights. We need to 'melt down' into some coherent transcending system of values in a way that is **not** Western dominated.

Changing our culture does not occur easily. But changes do occur. Newton, Einstein, Freud, Darwin, Marx and Gandhi helped create cultural changes. The Industrial Revolution, the Information Revolution, the aeroplane, the collapsing of the Berlin Wall have all meant some adjustment in cultures. As educators, we must believe we can help improve our civilisation - especially to the extent that there is truth in the statement of H.G. Wells that

"History is a race between education and catastrophe."

(8) Ten practical suggestions

1. Each institution should publicly state the values of their culture.
2. Employees and employers need to understand and own their culture through a periodic examination of their values and an audit of how successfully the organisation manifests its idealism. When employees and unions engage in discussions they both need to remember the cultural values to which they have committed themselves.
3. An organisation should clarify the extent of its respect for the variety of subcultures endorsed by the employees, students and local community. Wherever possible this cultural variety should be utilised to enhance the creativity and outreach of the organisation.

4. Racism which links performance necessarily to ethnic background needs to be rejected. Other factors such as family background are more likely to enhance workplace performance.
5. Workplace policies and procedures should be publicised to ensure that no form of harassment occurs whether racial, ethnic, gender or religious.
6. Efforts should be made to ensure that the developing monoculturalism of international society does not hinder the flourishing of our various traditional cultures. Opportunities should be made to celebrate ways cultural diversity translates into creative productivity.
7. We need to foster an allegiance to such values as respect for people, for nature, for creativity, for justice, for the rhythm of work and play in our various cultures and especially in the culture of our own society.
8. Similarly, we need to challenge our politicians to clarify the values of our national and international cultures. If we are to enter the next century with any confidence, we must examine responsibly the governing myths and values of our prevailing monoculture.
9. Where the workplace ethic is not strong, the concepts of discipline, rigour, dedication and competency need to be inspired by a culture which values the will to care, the will to achieve, the will to significance, and the will to belong.
10. We need to acknowledge that cultural wisdom does not just happen. It depends on education. So curricula should include a module on social and cultural responsibility.

6.10 ICES Activity in Consolidation of International, Governmental and Non-Governmental Actors for Adult and Continuing Education

by S. I. Peshkov

Prof S. I. Peshkov is the Director of the Russian UNEVOC Centre of ICES, President of the Committee for Technical and Vocational Education at the Russian Commission for UNESCO and a Consultant in Vocational and Higher Education.

(1) ICES profile ... 85
(2) ICES model of co-operation in adult and continuing education ... 87
(3) Future trends in adult and continuing technical and vocational education in the Russian Federation ... 88
References ... 89

Dear Colleagues,

I would like to say a few words about the Russian UNEVOC Centre of ICES to illustrate a possibility of consolidating international, governmental and non-governmental organisations, private and commercial enterprises in the changing orientation and policy environment of adult and continuing technical and vocational education.

(1) ICES profile

The International Centre of Educational Systems (briefly: ICES) was established six years ago following the USSR proposals at the UNESCO General Conference in Paris. It is a non-governmental, non-profit international association registered at the United Nations Development Programme and at the Russian Federation Ministry of Justice.

The Centre has been created to implement the ideas of international co-operation and comprehensive multifaceted (cont.), and inter-disciplinary education of man.

The Centre is intended:

- to promote pedagogical, cultural, scientific and technological and business co-operation between Russian, international and foreign organisations;
- to organise and carry out training and retraining of personnel both in Russia and abroad;
- to organise and hold on the national and international levels conferences, seminars and various programmes on problems of interest to the Centre participants.

- to represent the interests of its participants at the governmental, international and non-governmental organisations.

ICES is characterised by a flexible structure and broad spectrum of co-operation patterns with its participants depending on their interests and capabilities.

The Centre participants are Russian, foreign and international organisations, associations and industrial enterprises regardless of their location who have expressed their desire to take part in the ICES activities and abide by its statute.

Presently the ICES members are organisations from Bulgaria, France, Kazakhstan, Russia, Sweden, Tadjikistan, the UK and the USA.

The ICES is a member of the International Association of Continuous Engineering Education (IACEE) and maintains business contacts with organisations of the UN system (UNESCO, UNIDO, UNDP, UNIDIR, IAEA, etc.) and other governmental, non-governmental and international organisations in Russia and abroad.

A year ago, ICES became a co-ordination agency for the UN Project on Technical and Vocational Training (UNEVOC) in the Russian Federation.

The Centre (Figure 1, page 88 gives the structure of the Centre) consists of several departments of which the relevant for our conference are the following:

- Education
- Literature and Linguistic Training
- Informatics, Automation and Systems Simulation
- Problems of Ecological Sustainable Development
- Psychology and Ergonomics

As an example of their activity I could cite the following seminars:

- Russian-US seminar on new forms of teachers training in the Russian Federation
- Problems of humanizing education
- Educational standards: assessment, diagnostics and quality management
- The vision of a New European University

An International Chair/Network UNESCO-ICES "Transfer of Technologies for Sustainable Development" was established at ICES in 1997 (Fig.2, page 97).

Directly related to technical and vocational education are the following Departments of the Chair, particularly:

- "Innovation Technologies for Continuing Education" having a multimedia training class creating multimedia programmes and using them during education. Today the department fulfils UNESCO's request to prepare a CD-ROM on UNESCO's 50th anniversary, and a Louvre request on a computer visit to the museum (Russian version).
- "Engineering Heritage, Monuments of Science and Technology" (Management of Engineering Heritage, Monuments of Science and Technology for International Community and Future Generations) on the basis of Russian State Polytechnic Museum.
- Management of Innovation Development for Transfer of Technologies (based on the Innovation Management Academy).
- Advanced Technologies in Industry and Education (on the basis of the N.E. Bauman Moscow State Technological University).

Changes in the governmental system in the Russian Federation were accompanied by a modification and improvement in education:

- Firstly, there still exists a well-designed and government controlled education sector with adequate logistics. Its main drawback is a poor flexibility and adaptability to changing demands of the economy and the labour market.
- Secondly, the non-governmental education that emerged several years ago successfully adapts to changing conditions but lacks stable logistics, appropriate curriculums and training methods.
- Thirdly, the most promising way of developing education in Russia is creating parallel to CET mixed educational institutions involving governmental, non-governmental, industrial and commercial bodies.

I would like to illustrate prospects of creating the above mentioned educational bodies on the example of a Multimedia Technical and Vocational Educational Centre as a model of CET and its assets for changing policy environment in the field of adult and continuing education.

First a few words about the multimedia role in educational process.

Today we have realised the necessity for a transfer to a multi- and interdisciplinary education including environmental aspects as an inseparable component of any student sphere. Naturally, such an approach requires a powerful instrument – multimedia. For this reason, ICES has launched a broad activity on multimedia applications in the Centre programmes, particularly in the field of adult and continuing technical vocational education.

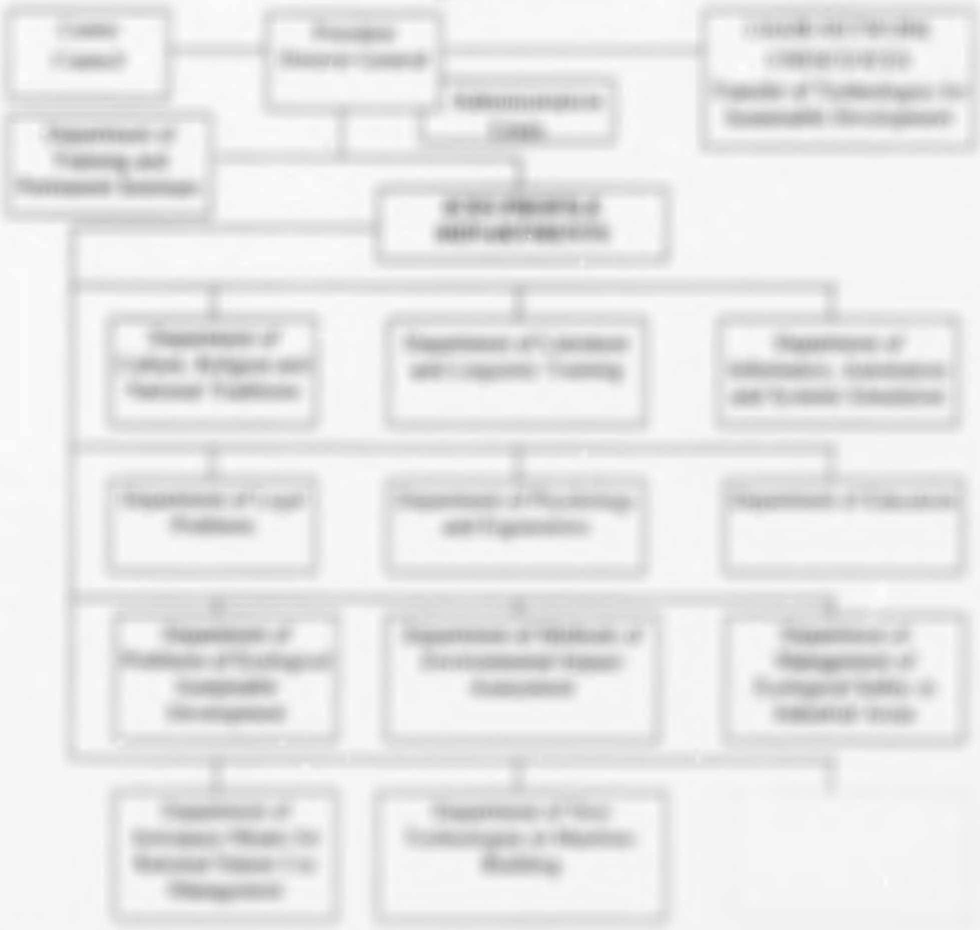
A Department of the Chair created on the basis of the State Academy of Administration of the President of the Russian Federation and named "Innovation Technologies for Continuing Education" is in charge of this activity.

Multimedia applications offer several methodological advantages. Scientists have proved that a technique used by a student to master the studied material is closely related to a student's capability for remembering and implementing the studied material in practice. Only 1/5 of the audio perceived material is stored in memory. About 1/3 of the visually perceived material is remembered by a student.

A combined audio-visual perception increases the ratio to 1/2, and if a student is involved in an activity during training, e.g. via a multimedia-type interactive education programme, the ratio of the mastered material may amount to 75 percent. Among other things, multimedia is a new level education technique synthesizing the previously existing teaching methods.

INTERNATIONAL CENTRE OF EDUCATIONAL SYSTEMS

Figure 1


Centre Council
President, Director General
Administrative Units
Transfer of Technologies for Sustainable Development
Department of Training and Permanent Seminars
SCIENTIFIC DEPARTMENTS
Department of Cultures, Religions and National Traditions
Department of Literature and Linguistic Training
Department of Informatics, Automation and Economic Education
Department of Legal Problems
Department of Psychology and Ergonomics
Department of Education
Department of Problems of Ecological Sustainable Development
Department of Methods of Environmental Impact Assessment
Department of Management of Ecological Safety in Industrial Areas
Department of Information Means for National Nature Use Management
Department of New Technologies in Machine Building

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(3) [illegible] model of co-operation in adult and continuing education

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(9) Future trends in adult and continuing technical and vocational education in the Russian Federation

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Appendices

1 The Daily Schedule

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B [illegible]

The following documents were presented

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C Contributions that will be expected from participants

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C1 [illegible]

C1.1 [illegible]

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C1.2 [illegible]

[illegible]

C2 During the Symposium

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C2.3 [illegible]

[illegible]

C2.4 [illegible]

[illegible]

C3 After the Symposium

C3.1 [illegible]

[illegible]

C3.2 [illegible]

[illegible]

6 The Working Document

[illegible]

[illegible]

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2.1 Introduction

2.1.1 Expected results

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2.1.2 Suggested content

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2.1.3 Areas of interest

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2.2 Preparing unit cadre

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(3.4) *The changes in content and educational approaches*

- The specificity and complementarity of initial and further vocational education.
- The content of adult education and continuing technical and vocational education, including attitudes and values relating to effective work practice.
- The shifting boundaries between general and vocational content in adult and continuing technical and vocational education (vocationalised general education and polyvalence of technical education).
- Self-directed learning.
- Work-related non-formal basic education in developing countries for out-of-school children over eleven years old.
- Career guidance in initial education and throughout the activity life.
- The specificity of the learning conditions and of the learning-teaching requirements for adult learners.
- Information services on re-training opportunities.
- The recognition of prior learning - credit.
- The vertical and horizontal transfer of learning.

(3.5) *The change and impact of culture on the worker and on work*

- The formation of attitudes to work by the child in developing years.
- Career education as a means of developing healthy work attitudes in the young person.
- The worker and his/her attitudes to work, especially labour.
- The cultural attitudes to the various ranks of workers.
- Training the worker using adult methods of work.
- The conflict of adult methods of training and cultural attitudes.
- Changing the culture to give status to the worker, especially the lower level worker.
- Preserving the culture in the face of the internationalisation of work.
- The place of unions in relation to the worker, the employer, and the culture.
- The development of unionism as a positive contribution to the attitudes of the worker and the employer.

The practical over-riding issue will be "**the integration of education and training recurrent events in one educational lifelong biography**". This would embrace the future of initial technical and vocational education in the more formal school setting of the institution, to further out-of-school industry training, and informal technical and vocational education, and other work-related adult learning opportunities, like workplace literacy, second language teaching, employee sabbatical leaves.

(4) Parameters

(4.1) *Change*

- Probably the most overwhelming trend in technical and vocational education in the future will be that of **change**. Technology is having its impact on the shape of jobs such that some are being lost while others are being created. The tendency is that those that are being lost are the more basic jobs that are being substituted by machinery. The obvious implication of this phenomenon is that more sophisticated and continuing technical and vocational education will be needed to lift the skills of the workers to the level of sophistication of the job or to create the skills needed for new jobs. The characteristic of the change is not only radical but also swift. This puts additional pressure on the future trends in continuing technical and vocational education for change as it will be hard for the institutions to keep up with the changes in the world of work, and increasingly expensive. Ipso facto change implies planning. Yet the more radical the change and the more swift it occurs the harder it is to plan for change. This is exacerbated by the fact that a certain amount of change, discovery and unexpected developments, is unpredictable and cannot therefore be planned.
- Other important **changes** that will increasingly impact on technical and vocational educational institutions are the social changes of our society. The behaviour of students within these institutions is reflecting the changes we are developing in concepts of personal freedoms, of self-discipline and interpersonal relationships and responsibilities, the role of women in the world of work, and the importance of equal opportunity as the mobility of workers increases through the internationalisation of industry.
- **Changes** in values are also affecting wage expectations, the status of the various occupations, the status of technical and further education itself, and the number of jobs in our society and the differentiation between these.

(4.2) *World of work*

- Future trends in the **world of work** and the **workers** response to these trends will have a radical impact on technical and vocational education, whether within an institution or in an enterprise. Robotics will not only displace jobs but require retraining of the **worker** on the job. For a great deal of the retraining and up-grading of skills that will be necessary, the training will need to take place on the job. For one reason, this will be necessary because educational institutions will not be able to afford the expensive equipment for training. Further, it is probable that many technical and vocational instructors will not have the skills to operate the modern and sophisticated equipment that will gradually be installed in the work enterprises. This will be particularly true for international firms.

- **Health and safety in the world of work** is becoming more urgent as the economy loses more and more time and finance through the effects of poor health and safety procedures. Future trends in the developing countries are going to demand higher standards of health and safety, with the concomitant costs. It is likely that improved conditions such as higher pay, longer holidays, sick leave and other benefits will be demanded. Unionism has not characterised the developing world but it is increasing through the influence of the Western world. This will have a significant impact on the relationships between management and workers and probably increase the cost of employment in one way or another. Worker participation in management is becoming more significant and changing the industrial scene.

- A basic understanding of the **economy, the world of work** and **the worker**: their development and change; the transformation of work and the changing **international** division of labour; an understanding of the growing informal economic sector; a basic understanding of competition, of markets, of supply and demand, and the attitudes of the worker; an understanding of wages and taxes, of consumption and saving. But these understandings will not work without changes in the superstructure of values and the attitudinal factors that are national and international in scope. We do need a new world order that can change dependency to genuine interdependence among nations and can accommodate cultural, religious, and economic diversity. We need new models of development rooted in particular cultural contexts. These models must be built on a mix of the local and the global and of mass and craft production, on concepts of the good life that are not imperial but humane, rooted in authentic aspirations that dignify individuals rather than make them mere consumers of goods. We need to make use of environmental resources disciplined by an ethics of frugality, and the development of individual egos and desires disciplined by social responsibility to those around us and others yet to be born.

(4.3) Women

- The issue of equal opportunity is increasingly becoming an essential dimension of the world of work. It is obvious that a future trend in technical and vocational education will be the opening up of careers to women that have thus far been the prerogative of men. An essential means of achieving this dimension is the development of attitudes that support it. Such attitudes are not developed in a day. They take considerable time and reinforcement to be developed. Career education has potential to develop such attitudes over the school years from kindergarten to the final years. But the school course must be holistic and all subjects support the development of these attitudes.

(4.4) The principles of adult and continuing education

- These have been developed over the past twenty years and are of vital significance to the delivery of technical and vocational education, wherever it occurs. Especially is this true as continuing technical and vocational education moves into the work place. The demand for continuing technical and vocational education requires workers to be self-directed in their career development and undertake the initiatives required to pursue learning through their own learning capacities. This requires that an important part of their early learning curriculum will contain learning-to-learn principles.

- Post-primary out-of-school adult and continuing education in relation to adult learning and the world of work is increasing the reality of continuing technical and vocational education. The integration of recurrent training events in one educational biography focuses on recurrent technical and vocational education and continuing learning opportunities for the active population. Placement in industry to support career education requires considerable co-operation. Total quality control is requiring a closer integration between the world of work and the training institution.

(4.5) Literacy

- The role of non-formal basic education and **literacy** regarding the growing informal economic sector will need to be addressed. The two important defining vectors of societies in our times are the spread of science and technology and the emergence of a culture of print, each making and remaking the other. Preparation for work without some facility with print, that is, literacy of a reasonable level, is today well-nigh impossible, irrespective of where we live and work. The informal training and socialisation for worker roles will for ever remain a mix of the verbal, visual, and written communication. In today's culture of print, however, it is now more and more the case that for effective delivery of Education and Training for Work in educational and other institutional settings, and for the performance of work afterwards, the printed word has come to be absolutely necessary. All cultures have become print cultures, more or less. Literacy is woven in the woof and texture of societies, developed and developing, in all of the institutions of societies - economic, political, social, educational, and cultural. So we must ask: what is the place of work-place literacy? How is work-place literacy integrated between the institution and the industry setting?

(5) Relevant questions

(5.1) The place of adult and continuing technical and vocational education

- What is the need for adult and continuing technical and vocational education?
- For whom is the need, and thus who should participate?
- How should we select participants?
- Is there a difference among different populations, Asian, African, South American?
- What are the pointers to future trends?
- What is the place of industry in adult and continuing technical and vocational education?
- How can we motivate industry to participate?
- How can we use adult and continuing technical and vocational education as a means to tackle employment problems?

(5.2) Delivery of adult and continuing technical and vocational education

- How to deliver external studies, competency-based education, new technologies etc.?
- How do we **continue** adult and continuing technical and vocational education?
- When do we begin career education?
- What is the potential of competency-based education for technical and vocational education?
- How do we provide for flexible entry and exit to adult and continuing technical and vocational education?
- In what ways do we facilitate vocational mobility through adult and continuing technical and vocational education?
- What kind of media can be used for better use of adult and continuing technical and vocational education?
- How is it spread across the developing world?
- How do we develop access to adult and continuing technical and vocational education through guidance?

(5.3) Context of adult and continuing technical and vocational education

- What is the nature of the world of work?
- What is work and how is it changing?
- What are the various social philosophies of work?
- How do we include employment trends into the content of adult and continuing technical and vocational education?
- How do we provide for non-formal adult and continuing technical and vocational education?

(5.4) The role of information and guidance in adult and continuing technical and vocational education

- How do we locate job opportunities?
- How do we learn what are the work tasks?
- How do we determine the requirements of a job?
- How do we obtain access to continuing technical and vocational education?
- How do we determine the appropriate contents of continuing technical and vocational education?
- How do we determine the legal requirements of a job?
- How do we make available continuing technical and vocational education at the various levels?
- Do we develop in people an appropriate occupational outlook?
- How do we provide opportunities for further training?
- How do we determine the financial aspects (cost, return on investment)?

(5.5) Curriculum of adult and continuing technical and vocational education

- What should be the content?

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- What is the place of self-initiative - entrepreneurial skills, job creation, etc.?
- What technologies should be addressed?
- What is the generic core of transferable skills?
- What is the function of work-place literacy?
- How do we vocationalise general education?
- How do we teach people to work for themselves?
- How do we develop positive attitudes towards work and behavioural work attitudes?
- How do we identify and impart upon occupational requirements?
- How do we develop the full potential of the individual through adult and continuing technical and vocational education, not only through general education?
- How do we spread knowledge on vocations?

(5.6) *The nature and role of the worker and unions*

- What is the attitude of the worker to the different types of work?
- What is the attitude of the worker to training?
- How is the status of lower-paid work lifted?
- How is the employer persuaded to assist in the financing of training the lower level worker?
- What incentives can be applied to attract school drop-outs to undertake lower level work?
- What role do unions have in the process of attracting young people to lower level work?
- What role do unions have to play in their relationships with the employers?
- What role do unions have in their relationships to training?
- How can the status of the various levels of education and training be changed?
- How can the adult lower level worker be persuaded to undertake more training?
- How can the trainer be persuaded to apply adult training methods in adult training?
- How can the trainer be trained in adult learning methods?

(5.7) *The place of culture in adult and continuing technical and vocational education*

- What is the role of the different cultures to attitudes to training?
- What is the role of the different cultures to attitudes to work?
- Can cultural blockages to life-long learning be removed? How?
- Can cultural blockages to the various types of work be changed?
- What part does culture play in the internationalising of work?
- What part does culture play in the mobility of the worker?
- To what degree does culture need to be changed for effective continuing education?
- To what degree does culture need to be preserved for social realities?

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F Convention on Technical and Vocational Education Adopted by the General Conference of UNESCO at its twenty-fifth session Paris, 10 November 1989

1 Preamble

The General Conference of the United Nations Educational, Scientific and Cultural Organisation, meeting at Paris from 17 October 1989 to 16 November 1989 at its twenty-fifth session,

Recalling that it is the Organisation's constitutional duty to promote and develop education,

Recalling also the principles set forth in Articles 23 and 26 of the Universal Declaration of Human Rights which relate to the right to work and to education, the principles contained in the Convention against Discrimination in Education, adopted in Paris on 14 December 1960, the International Covenant on Economic, Social and Cultural Rights and the International Covenant on Civil and Political Rights, adopted in New York on 16 December 1966, as well as the Convention on the Elimination of All Forms of Discrimination against Women, adopted by the United Nations General Assembly on 18 December 1979,

Recognising that the development of technical and vocational education should contribute to the safeguarding of peace and friendly understanding among nations,

Having noted the provisions of the Revised Recommendation concerning Technical and Vocational Education, and the Recommendation concerning Education for International Understanding, Co-operation and Peace and Education relating to Human Rights and Fundamental Freedoms, both adopted by the General Conference at its eighteenth session in 1974,

Having noted further the provisions of the Recommendation on the Development of Adult Education, adopted by the General Conference in 1976, and the Recommendation concerning the Status of Teachers, adopted by the Special Intergovernmental Conference in 1966,

Taking into account the relevant recommendations of the International Conference on Education,

Bearing in mind the provisions of the Convention (No. 142) and Recommendation (No. 150) concerning Vocational Guidance and Vocational Training in the Development of Human Resources, adopted by the International Labour Conference at its sixtieth session in 1975,

Noting further the close collaboration between UNESCO and the International Labour Organisation in drawing up their respective instruments so that they pursue harmonious objectives and with a view to continuing fruitful collaboration,

Considering the need to make a special effort to promote the technical and vocational education of women and girls,

Paying special attention to the diversity of education systems and socio-economic and cultural conditions, in particular those in developing countries which need special considerations and provisions,

Considering that, in spite of this diversity, generally similar objectives are pursued and that similar problems arise in many countries, making it desirable to develop common guidelines in technical and vocational education,

Recognising that the pace of technological, social and economic development has considerably increased the need to expand and improve the technical and vocational education provided for both young people and adults,

Recognising that technical and vocational education meets the global aim of developing both individuals and societies,

Convinced of the need for the exchange of information and experiences in the development of technical and vocational education and of the desirability of strengthening international co-operation in this field,

Convinced of the utility of an international legal instrument to reinforce international collaboration in the development of technical and vocational education,

Adopts the present Convention this tenth day of November 1989:

Article 1

The Contracting States agree that:

a) for the purpose of this Convention 'technical and vocational education' refers to all forms and levels of the educational process involving, in addition to general knowledge, the study of technologies and related sciences and the acquisition of practical skills, know-how, attitudes and understanding relating to occupations in the various sectors of economic and social life;

b) this Convention applies to all forms and levels of technical and vocational education provided in educational institutions or through co-operative programmes organised jointly by educational institutions, on the one hand, and industrial, agricultural, commercial or any other undertaking related to the world of work, on the other;

c) this Convention shall be applied in accordance with the constitutional provisions and legislation of each Contracting State.

Article 2

1. The Contracting States agree to frame policies, to define strategies and to implement, in accordance with their needs and resources, programmes and curricula for technical and vocational education designed for young people and adults, within the framework of their respective education systems, in order to enable them to acquire the knowledge and know-how that are essential to economic and social development as well as to the personal and cultural fulfilment of the individual in society.

2. The general framework for the development of technical and vocational education shall be determined in each Contracting State by appropriate legislation or other measures indicating:

a) the objectives to be attained in technical and vocational fields, taking into consideration economic, social and cultural development needs and the personal fulfilment of the individual;

b) the relationship between technical and vocational education, on the one hand, and other types of education, on the other, with particular reference to horizontal and vertical articulation of programmes;

c) the structures for administrative organisation of technical and vocational education defined by the responsible authorities;

d) the roles of the public authorities responsible for economic, social and development planning in the various sectors of the economy and, where applicable, of professional associations, workers, employers and other interested parties.

3. The Contracting States shall guarantee that no individual who has attained the educational level for admission into technical and vocational education shall be discriminated against on the grounds of race, colour, sex, language, religion, national or social origin, political or other opinions, economic status, birth, or on any other grounds.

The Contracting States shall work towards the right to equal access to technical and vocational education and towards equality of opportunity to study throughout the educational process.

4. The Contracting States shall pay attention to the special needs of the handicapped and other disadvantaged groups and take appropriate measures to enable these groups to benefit from technical and vocational education.

Article 3

1. The Contracting States agree to provide and develop technical and vocational education programmes that take account of:

a) the educational, cultural and social background of the population concerned and its vocational aspirations;

b) the technical and professional skills, knowledge and levels of qualification needed in the various sectors of the economy, and the technological and structural changes to be expected;

c) employment opportunities and development prospects at the national, regional and local levels;

d) protection of the environment and the common heritage of mankind;

e) occupational health, safety and welfare.

2. Technical and vocational education should be designed to operate within a framework of open-ended and flexible structures in the context of lifelong education and provide:

a) an introduction to technology and to the world of work for all young people within the context of general education;

b) educational and vocational guidance and information, and aptitude counselling;

c) development of an education designed for the acquisition and development of the knowledge and know-how needed for a skilled occupation;

d) a basis for education and training that may be essential for occupational mobility, improvement of professional qualifications and updating of knowledge, skills and understanding;

e) complementary general education for those receiving initial technical and vocational training in the form of on-the-job or other training both inside and outside technical and vocational education institutions;

f) continuing education and training courses for adults with a view, in particular, to retraining as well as to supplementing and upgrading the qualifications of those whose current knowledge has become obsolete because of scientific and technological progress or changes in the employment structure or in the social and economic situation, and also for those in special circumstances.

3. Technical and vocational education programmes should meet the technical requirements of the occupational sectors concerned and also provide the general education necessary for the personal and cultural development of the individual and include, inter alia, social, economic and environmental concepts relevant to the occupation concerned.

4. The Contracting States agree to tender support and advice to undertakings outside educational institutions which take part in co-operative programmes of technical and vocational education.

5. At each occupational level, the competence required must be defined as clearly as possible and curricula must be continuously updated to incorporate new knowledge and technical processes.

6. In assessing the ability to carry out occupational activities and determining appropriate awards in technical and vocational education, account should be taken of both the theoretical and practical aspects of the technical field in question, and this should apply both to persons who have received training and to persons who have acquired occupational experience in employment.

Article 4

The Contracting States agree to review periodically the structure of technical and vocational education, study programmes, plans, training methods and materials, as well as forms of co-operation between the school system and the world of work, so as to ensure that they are constantly adapted to scientific and technological progress, to cultural progress and to changing employment needs in the various sectors of the economy, and that advances in educational research and innovation are taken into account with a view to application of the most effective teaching methods.

Article 5

1. The Contracting States agree that all persons teaching in the field of technical and vocational education, whether working full time or part time, should have adequate knowledge, theoretical and practical, of their professional field of competence as well as appropriate teaching skills consistent with the type and level of the courses they are required to teach.

2. Persons teaching in technical and vocational education should be given the opportunity to update their technical information, knowledge and skills through special courses, practical training periods in enterprises and any other organised form of activity involving contact with the world of work; in addition, they should be provided with information on and training in educational innovations that may have applications in their particular discipline and be given the opportunity to participate in relevant research and development.

3. Equal employment opportunities should be offered, without discrimination, to teachers and other specialised staff in technical and vocational education and their employment conditions should be such that it is possible to attract, recruit and retain staff qualified in their areas of competence.

Article 6

To facilitate international co-operation, the Contracting States agree:

a) to encourage the collection and dissemination of information concerning innovations, ideas and experience in technical and vocational education and to participate actively in international exchanges dealing with study and teacher-training programmes, methods, equipment standards and textbooks in the field of technical and vocational education;

b) to encourage the use in technical and vocational education of international technical standards applied in industry, commerce and other sectors of the economy;

c) to promote approaches to achieving the recognition of equivalencies of qualifications acquired through technical and vocational education;

d) to encourage international exchanges of teachers, administrators and other specialists in technical and vocational education;

e) to give students from other countries, particularly from developing countries, the opportunity to receive technical and vocational education in their institutions, with a view, in particular, to facilitating the study, acquisition, adaptation, transfer and application of technology;

f) to promote co-operation in technical and vocational education between all countries, but in particular between industrialised and developing countries, in order to encourage the development of the technologies of the countries;

g) to mobilise resources for strengthening international co-operation in the field of technical and vocational education.

Article 7

The Contracting States shall specify, in periodic reports submitted to the General Conference of the United Nations Educational, Scientific and Cultural Organisation at the dates and in the form determined by it, the legislative provisions, regulations and other measures adopted by them to give effect to this Convention.

Article 8

The following provisions shall apply to those States Parties to this Convention which have a non-unitary constitutional system:

a) with regard to the provisions of this Convention, the implementation of which comes under the legal jurisdiction of the federal or central legislative power, the obligations of the federal or central government shall be the same as for those States Parties with a centralised system;

b) with regard to the provisions of this Convention, the implementation of which comes under the legal jurisdiction of federated States and constituent countries, provinces, autonomous communities or cantons that are not obliged by the general or basic constitutional system of the federation to take legislative measures, the central government shall inform the competent authorities of such States, countries, provinces, autonomous communities or cantons of the said provisions, with its recommendation for their adoption.

Article 9

Member States of UNESCO may becomes Parties to this Convention, as well as non-Member States of UNESCO which have been invited by UNESCO's Executive Board to become Parties, by depositing with the Director-General of UNESCO an instrument of ratification, acceptance, accession, or approval.

Article 10

This Convention shall enter into force three months after the third instrument referred to in Article 9 has been deposited, but solely with respect to the States that have deposited their respective instruments by that date. It shall enter into force for each other State three months after that State has deposited its instrument.

Article 11

1. Each Contracting State shall have the right to denounce this Convention by formal notification in writing to the Director-General of the United Nations Educational, Scientific and Cultural Organisation.

2. The denunciation shall take effect 12 months after the notification has been received.

Article 12

The Director-General of the United Nations Educational, Scientific and Cultural Organisation shall inform the Member States of the Organisation, the non-Member States covered by Article 9 and also the United Nations of the deposit of all the instruments referred to in Article 9 and the denunciations provided for in Article 11.

Article 13

1. This Convention may be revised by the General Conference of the United Nations Educational, Scientific and Cultural Organisation. Such revision shall, however, be binding only on States Parties to the revised Convention.

2. Should the General Conference adopt a new Convention entailing a total or partial revision of this Convention, and unless the new Convention otherwise provides, this present Convention shall cease to be open to new States Parties from the date of entry into force of the new revised Convention.

Article 14

This Convention has been drawn up in Arabic, Chinese, English, French, Russian and Spanish, the six texts being equally authoritative.

Article 15

In conformity with Article 102 of the Charter of the United Nations, this Convention shall be registered with the Secretariat of the United Nations at the request of the Director-General of the United Nations Educational, Scientific and Cultural Organisation.

Done in Paris, this sixteenth day of November 1989, in two authentic copies bearing the signature of the President of the twenty-fifth session of the General Conference and of the Director-General of the United Nations Educational, Scientific and Cultural Organisation, which shall be deposited in the archives of the United Nations Educational, Scientific and Cultural Organisation, and certified true copies of which shall be delivered to all the States referred to in Article 9 as well as to the United Nations.